

## New Noctuidae Species and Subspecies from Taiwan and the Adjacent Areas II (Lepidoptera)

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**Abstract** Twelve new species, *Cryphia herczigi* sp. nov., *C. hohuana* sp. nov., *Odontestra laszlogabi* sp. nov., *O. attila* sp. nov., *Xylena plumbeopaca* sp. nov., *Taivaleria rubrifasciata* sp. nov., *Hemiglaea radiata* sp. nov., *Nyctycia signa* sp. nov., *Fabiania pulla* sp. nov., *F. satellitia* sp. nov., *F. marki* sp. nov., *Asidemia albiovitta* sp. nov., and three new subspecies, *Xestia fuscostigma csoevarii* ssp. nov., *Karana hoenei marcida* ssp. nov. and *Sphragifera sigillata taimacula* ssp. nov., are described from Taiwan, Thailand, and Vietnam. Two new genera, *Taivaleria* gen. nov. and *Fabiania* gen. nov., are established, and taxonomic notes for some little known noctuids are given. Illustrations of the male or the female genitalia for 45 species, and 34 images of adults are provided.

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**Key words** Noctuidae, new taxa, Taiwan, China, Vietnam

## INTRODUCTION

The first two papers dealing with new Noctuidae taxa found by the Hungarian expeditions led to Taiwan between 1996–1997 were published recently (Hreblay & Ronkay, 1997, 1998). Present paper contains the results of the subsequent studies, including descriptions of 12 new species and three subspecies, a review of the genus *Odontestra* Hampson, 1905, and descriptions of two new genera: *Taivaleria* appears as monotypic and endemic to Taiwan, while the second new genus, *Fabiania* is erected for a small compact group of species occurring in the southern China, Vietnam, and Taiwan.

Abbreviations:

BMNH – The Natural History Museum, London (formerly British Museum, Natural History).

TFRI – Taiwan Forestry Research Institute, Taipei.

HNHM – Hungarian Natural History Museum, Budapest.

ZFMK – Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn.

NMNS – National Museum of Natural Science, Taichung.

The codes “HM” and “RL” in the numbers of the genital slides refer to the person who made the dissection of the specimen and the mounting of the genitalia: HM – M. Hreblay, RL – L. Ronkay. The

holotypes were described in this paper, representing parts of the collections of Gy. Fábíán, M. Hreblay and G. Ronkay, are deposited in the HNHM, Budapest.

## SYSTEMATICS

### *Cryphia herczigi* sp. nov.

(Figs 1, 46)

*Types.* Holotype: ♂, Taiwan, Prov. Taichung, Anmashan, Tashueshan FRA, 2200 m, 19.VI.1997, leg. B. Herczig & L. Ronkay (coll. HNHM). Slide No. RL5957. Paratypes: 2 ♂, with the same data as the holotype (coll. B. Herczig & G. Ronkay).

*Diagnosis.* The new species belongs to the *C. granitalis* (Butler, 1881) – *C. albimixta* (Sugi, 1980) species-group, differing from the related taxa externally by its generally darker forewing colouration and the less sharply defined crosslines and stigmata. The closest relative of *C. herczigi*, according to the features of the male genitalia, is *C. albimixta*, the main differences between them can be found in the shape of the cornutus of the vesica which is scaphoidal of *C. herczigi*, the apex of the cornutus is pointed. In addition, the uncus of the new species is somewhat shorter, more dilated apically, than that of *C. albimixta*, the valva is shorter with broader medial and less widened apical parts, the harpe is longer, more sclerotized, and the basal part of the fultura inferior is more rounded.

*Description.* Wingspan 27–28 mm, length of forewing 12–13 mm. Body slender, head and thorax metallic grey mixed with brownish and whitish grey scales. Antenna finely ciliate, palpi short, slightly upturned, sides dark grey–brown. Abdomen paler greyish, dorsal crest dark brown. Forewing elongate, narrow, with apex pointed; outer margin slightly concave at tornal angle. Ground colour dark brownish grey, irrorated with whitish grey and a few ochreous brown scales. Basal field wide; subbasal line diffuse, sinuous, double; antemedial arcuate, less sinuous, double, its filling whitish grey. Medial area rather narrow, constricted below cell; postmedial crossline more or less S-shaped, less sinuous, blackish, with whitish grey definition. Stigmata rather indistinct, small, orbicular rounded, represented by ochreous patch marked with a few blackish dots, reniform narrow, lunulate, incompletely encircled with blackish and whitish grey; claviform missing. Subterminal very pale, whitish shadow, defined with irregular, diffuse dark spots; tornus with diffuse, blackish line. Terminal line relatively wide, blackish grey; cilia as ground colour, spotted with paler grey. Hindwing whitish, suffused with greyish brown; veins dark; discal spot rather large but diffuse; marginal suffusion narrow, dark brown. Underside of wings pale ochreous grey, forewing strongly irrorated, but hindwing sparsely irrorated with darker grey–brown scales; discal spot and transverse line poorly visible on forewing, much stronger on hindwing.

Male genitalia (Fig. 1): Uncus rather long, slightly dilated distally, curved at basal third, apex pointed. Tegumen narrow, high, penicular lobes small, elongate. Fultura inferior cordiform, strong, with broad but less sclerotized, more or less quadrangular dorsal part, vinculum relatively long, thick, U-shaped. Valva elongate, medially constricted, distal third dilated, forming rather broad, rounded cucullus; corona absent. Sacculus short, setose, clavus reduced; harpe strong, relatively long, arcuate, with rounded apex; basal part with short, rounded process. Aedeagus cylindrical, rather short, thick; carina with two short, broad,

smooth lateral laminae. Vesica inflated, with large, rounded, finely scobinate dorsal diverticulum at base; main tube bent ventrally; medial part armed with large, flattened, wedge-shaped, finely dentate cornutus sitting in finely scobinate field.

*Bionomics and distribution.* The new species was found at a steep, northern rocky slope covered with sparse rocky vegetation and patches of small shrubs and various conifer trees, at a relatively high altitude in the Mts Anmashan. All specimens were collected by the same portable light trap placed under a rather large, almost nude rocky wall. It is worth mentioning that another species of the *granitalis*-group, *C. granitalis* is also known from Taiwan (Chang 1991; Kononenko 1998), but found at lower regions of the island. Taiwan.

*Etymology.* The new species is dedicated to Dr. Béla Herczig, collector of the first specimens.

***Cryphia hohuana* sp. nov.**

(Figs 2, 3, 47, 48)

*Types.* Holotype: ♂, Taiwan, Prov. Nantou, 3 km SW of Tsuifeng, 2100 m, 11.X.1995, 121° 10'E, 24° 06'N, leg. T. Csövári & P. Stéger, slide No. HM7960 (coll. Hreblay). Paratype: ♀, Taiwan, Prov. Taichung, Hsiangyang, 2300 m, 2.XI.1996, leg. Gy. Fábíán and F. Nemes (coll. Gy. Fábíán), slide No. RL6593(♀).

*Diagnosis.* The new species resembles externally *C. griseola* (Nagano, 1918) and *C. suzukiella* (Matsumura, 1931), these related species occur in the northern areas of the Pacific Coast (Russian Far East, Korea, Japan). *C. hohuana* is also slightly similar to *C. basichlora* Kononenko, 1998, described from Taiwan and to *C. maritima* Sugi, 1980, but smaller in size, the basal area has strong dark markings at lower half, the postmedial line is sharper, less sinuous, the marginal area is suffused strongly with bluish grey, the subapical and tornal blackish patches are stronger, more conspicuous. The male genitalia of the new species differ from those of *C. griseola* by their considerably longer costal, but shorter saccular extensions of the valva, the larger, broader fultura inferior and the shorter, thicker aedeagus; from those of *C. suzukiella* by its broader, distally not tapering valva with longer, more slender, not bifurcate costal (apical) extension and longer, narrower sacculus with long saccular process (*C. suzukiella* has considerably shorter sacculus, without extension but the apical extension is bifurcate with long, acute dorsal and much weaker, shorter ventral arm; see Sugi 1980, p. 191, fig. 12). The male genitalia of *C. basichlora* and *C. hohuana* are rather dissimilar, as the valva of *C. basichlora* has three apical processes, the longest and strongest of them is the medial extension, and the saccular process is short. The most characteristic feature of the female genitalia of *C. hohuana* is the heavily sclerotized, long, distally strongly tapering ductus bursae, which is weaker, partly or entirely membranous in the related species.

*Description.* Wingspan 23–24 mm, length of forewing 11 mm. Both sexes similar. Head and thorax ochreous grey, palpus rather long, upturned, laterally dark brown. Antenna filiform, vertex milky whitish, collar ochreous. Abdomen slightly more brownish, dorsal crest well-developed, consisting of small black tufts. Forewing rather short, broad, with apex finely pointed; outer margin evenly arcuate. Ground colour ochreous brown with greyish shade; medial area irrorated with darker grey and whitish scales; basal area

covered mostly with milky white; marginal area suffused with bluish white, dark greenish grey and a few blackish scales. Basal line interrupted, blackish, ante- and postmedial lines continuous. Antemedial line simple, oblique, less sinuous, blackish, defined with fine whitish inner line; postmedial line double, slightly waved; inner line strong, blackish, outer line much paler, greyish, filling whitish. Orbicular and reniform stigma rather indistinct, former represented by dark grey shadow, latter by its incomplete white outline and a few darker greyish scales inwards; claviform missing. Subterminal line indistinct, defined with blackish patches and diffuse dark shadow; terminal area and cilia milky whitish. Hindwing ochreous grey, covered with darker greyish brown scales, marginal suffusion relatively narrow, darker brown. Transverse line and discal spot very pale, shadow-like; cilia whitish with fine brown line at middle.

Male genitalia (Fig. 2): Uncus long, slender, curved, tegumen narrow, high, penicular lobes rounded, rather small. Fultura inferior more or less quadrangular, relatively broad and long, vinculum strong, V-shaped. Valva broad, more or less quadrangular with parallel costal and saccular margins. Costal (apical) extension very long, strong, slightly arcuate, pointed; sacculus long, narrow, sclerotized, with long, acute terminal process; harpe absent. Aedeagus rather short, thick, medially curved; carina with wide, beak-shaped ventro-lateral plate. Vesica broad, recurved ventrally; apical part with small, rounded diverticulum; medial and distal thirds finely scobinate.

Female genitalia (Fig. 3): Ovipositor long, narrow, papillae anales elongate, weak, gonapophyses slender, long. Ostium bursae with large, rounded, sclerotized ventral plate, dorsal surface membranous. Ductus bursae long, flattened, heavily sclerotized, distally strongly tapering, connected to ostium bursae with narrow, membranous neck. Cervix bursae large, semiglobular, membranous. Corpus bursae sacculiform, wrinkled, finely scobinate.

*Bionomics and distribution.* Poorly known, the two specimens were collected at the late autumn, in mixed deciduous forests at rather high elevations. Taiwan.

***Xestia fuscostigma csoevarii* ssp. nov.**

(Figs 4, 5, 49)

*Types.* Holotype: ♂, Taiwan, Prov. Nantou, 3 km SW of Tsuifeng, 2100 m, 18.VIII.1996, 121° 10'E, 24° 06'N, leg. Tibor Csövari & László Mikus, slide No. HM9353 (coll. Hreblay). Paratypes: Taiwan: Prov. Nantou: 5 ♂, 1 ♀, with the same data as the holotype; 3 ♂, 3 ♀, from the same locality, 11. & 20.X.1995, leg. T. Csövari & P. Stéger, 25–25.VI. & 7.VII.1997, leg. T. Csövari & L. Mikus; 1 ♀, 7 km SW of Tayüling, 3000 m, 19.VIII.1996, 121 16'E, 24 08'N, leg. T. Csövari & L. Mikus (coll. Hreblay); 1 ♂, Meifeng, 18.VII.1990, leg. Y.C. Chang; 1 ♀, 8.VII.1990, leg. Y.B. Fan; 2 ♀, Renlun, 21.VIII.1991, leg. Y.B. Fan (TFRI Taipei); 14 ♂, 19 ♀, Meifeng, 2250 m, 12110E, 2405N, 17–18.IX.1999, leg. G. Csorba and B. Herczig (coll. HNHM, Herczig and G. Ronkay); Piluchi: 2 ♂, 2 ♀, 30.VII.1986, 3.IX.1986, leg. Y.J. Chang (TFRI). Prov. Hualien: 3 ♂, Pilushernmuh, 22.VIII.1991, Nos 4946, 5259, 5003, leg. H.Y. Wang (NMNS Taichung); 1 ♂, Kuanyuan, 2400 m, 25.VIII.1997, leg. C.M. Fu (coll. FU). Prov. Taichung: 3 ♂, 3 ♀, Taichung, Anmashan, 2100 m, 19.VIII.1996, 13.IX.96, leg. C.M. Fu (coll. FU), slide Nos. HM7933, HM7962, HM9342 (♂), HM10183 (♀).

*Diagnosis.* The Taiwanese populations of *X. fuscostigma* (Bremer, 1861) differ externally from the

nominotypical subspecies by their conspicuously darker colouration. The forewing pattern of *X. f. csoevarii* is rather sharply defined but appears as less distinct than in *X. f. fuscostigma*, due to the dark violaceous brown or violaceous blackish grey background. The hindwing of the new subspecies is unicolorous brown, being considerably darker than that of the typical subspecies which is relatively pale ochreous-brownish with broad, darker marginal suffusion. The genitalia of the two subspecies display no recognizable differences; those of the new subspecies are illustrated in Figs 4, 5.

*Distribution.* Taiwan.

### Palearctic species of the genus *Odontestra* Hampson, 1905

The Himalayan-Sino-Tibetan species of the genus are often confused with each other, due to the great external similarity of the members of the same species group, the rather large individual variation of certain species and the unsatisfactory studies on the type material of the taxa described at the end of the last century. As a result of the revision of the types and additional large material of several species, a synopsis of the Eurasiatic *Odontestra* species is compiled, the lectotypes of the problematic taxa are designated and two new species are described. The discussions on the taxonomic and nomenclatural problems are given under the diagnostic parts and/or in the remarks of each species.

Synopsis:

*Odontestra* Hampson, 1905, Cat. Lep. Phal. V., p. 205. Type species: *Mamestra potanini* Alphéraky, *Dt. ent. Z. Iris*, 8: 192; illustrated by Alphéraky in Romanoff (1897): *Mém. Lépid.* 9: plate 9, fig. 10.

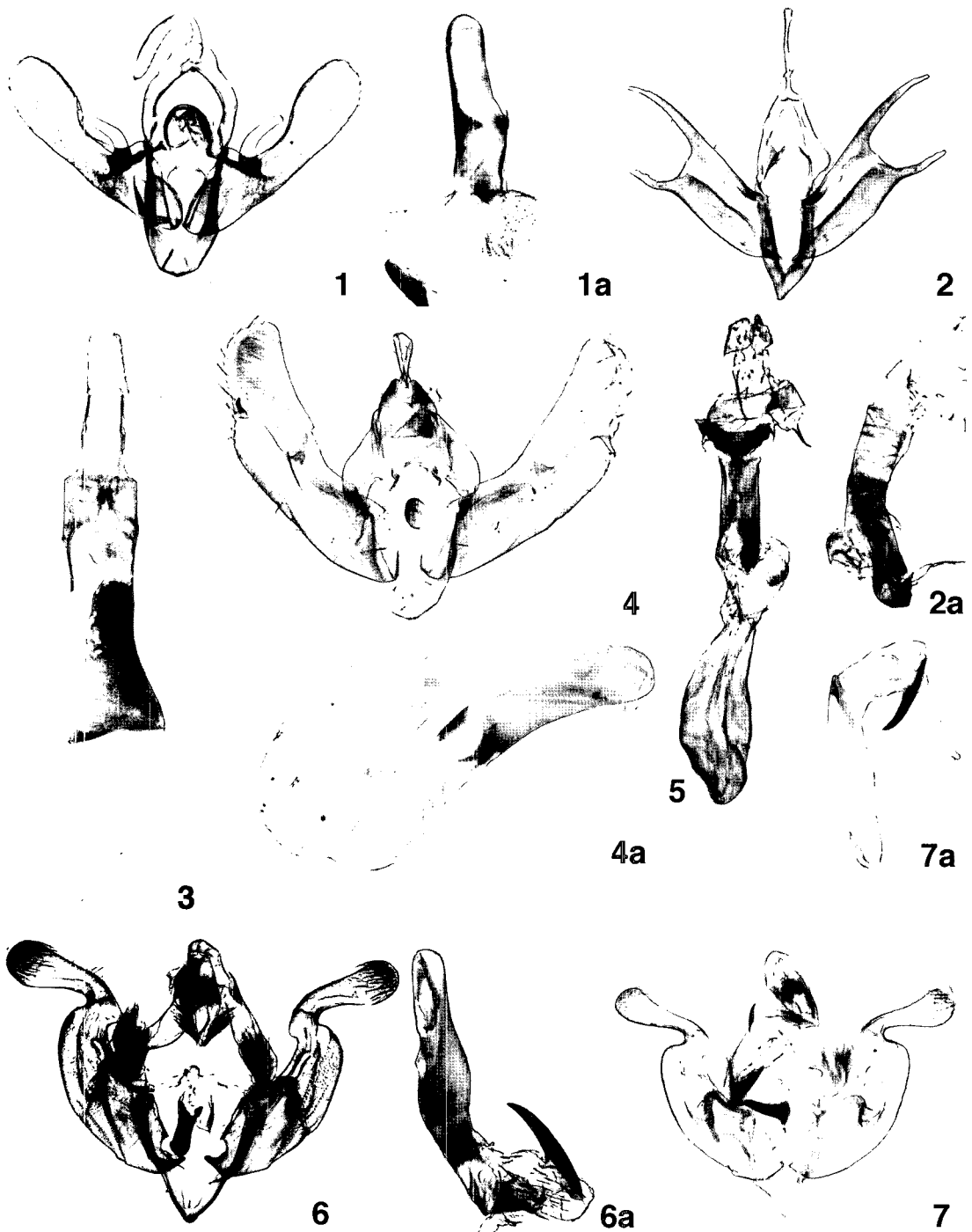
- *potanini* (Alphéraky, 1895)
- *roseomarginata* Draudt, 1950
- *laszlogabi* **sp. nov.**
- *atra* Hreblay & Ronkay, 1998
- *simillima* (Moore, 1881)
- *incisa* (Moore, 1881) **stat. rev.**
- *atuntseana* Draudt, 1950
- *attila* **sp. nov.**
- *submarginalis* (Walker, 1869)  
= *auripicta* (Butler, 1889)

### *Odontestra potanini* (Alphéraky, 1895)

(Figs 6, 7, 8, 50, 51)

*Material examined.* China: 3 ♂, Likiang (ca 2000 m), Prov. North Yunnan, 9. & 19.VII.1934; 1 ♀, Likiang (ca 3000 m), Prov. North Yunnan, 21.VII.1934, leg. H. Höne (coll. Mak and Hreblay), slide Nos. HM8337, HM8349, HM10972 (♂), HM10973 (♀).

*Diagnosis.* *O. potanini* resembles mostly to *O. incisa* (and *O. submarginalis*) by its evenly arcuate, not sinuous white subterminal line, the forewing colouration is also very close to that of *O. incisa*. These two



**Figs 1-7.** 1, *Cryphia herczigi* sp. nov., holotype; 2, *C. hohuana* sp. nov., holotype; 3, ditto, paratype female; 4, *Xestia fuscostigma csoevarii* ssp. nov., holotype; 5, ditto, paratype female; 6, *Odontestra potanini* (Alpheraky, 1895), male, China; 7, ditto, male, China.

species are hardly separable from each other by the external characteristics. The best difference between them is the shape of the forewing which is shorter, less elongate in *O. potanini*. In addition, the upper curve of the postmedial line is more arcuate in *O. potanini*, less angled above the vein  $M_1$ , and running less close to reniform than in *O. incisa*.

The genitalia of the two species are easily distinguishable: the male claspings apparatus of *O. potanini* is almost symmetrical, the fultura inferior has a long medial process, the saccular extensions are rudimentary, and the neck of the narrow, apically rounded cucullus is short, thick; while the claspings apparatus of *O. incisa* has strongly asymmetrical costal processi and well developed, asymmetrical saccular extensions, the medial process of the fultura inferior is missing, the neck of the apically more quadrangular cucullus is narrower, and the corona has a strong spine at ventral extremity. The configuration of the aedeagus and the vesica is similar in the two species, but the cornutus of *O. potanini* is considerably thicker, stronger and the carina has no dentated plate which is present in *O. incisa*. The other similar species, *O. submarginalis*, compared with *O. potanini*, has broader valva with larger costal process, simple fultura inferior, strongly asymmetrical, sclerotized clavus, larger saccular extensions and broader, rounded cucullus, and the vesica has no cornutus. The female genitalia of *O. potanini* differ from those of *O. incisa* by its shorter ostium bursae, stronger, larger ductus bursae, and by the broader but shorter, less infundibuliform sclerotized apical part of corpus bursae.

Male genitalia (Figs 6, 7): Uncus short, rather thick, curved, with large, flattened, densely setose scaphoidal ventral plate. Tegumen broad, penicular lobes long, narrow. Fultura inferior subrectangular, rather weak, with strongly sclerotized, apically rounded medial process; vinculum short, V-shaped. Valva almost symmetrical, left valva slightly larger, broader than the right valva; its costal lobe somewhat larger, more triangular; main part of valva arcuate, costal lobe small, more or less rounded; cucullus with rather strong neck, apical part rounded, corona present. Sacculus also slightly asymmetrical, left sacculus somewhat larger, saccular extensions short, rounded. Harpe reduced to its basal bar and tiny erected process; ampulla absent. Aedeagus short, cylindrical; carina with sclerotized dorsal plate. Vesica rather short, with large ventro-lateral diverticulum basally, bearing large, robust, claw-like cornutus.

Female genitalia (Fig. 8): Ovipositor medium-long, broadly conical; papillae anales quadrangular, setose, gonapophyses slender, fine. Ostium bursae sclerotized, broad but short trapezoidal. Ductus bursae also sclerotized, strongly dilated proximally, with folded anterior edges. Apical part of corpus bursae flattened, granulosely sclerotized, lyriform; fundus bursae small, membranous, elliptical, connected to apical part with narrow neck; cervix bursae small, globular, membranous.

**Remarks.** The genitalia of the holotype of this, most often misinterpreted species, the type species of the genus have not been examined yet, although the external features of the holotype were studied by the second author. The specimens from north Yunnan (coll. Höne, MAK Bonn), identified by Draudt (1950) as *O. potanini* fit well with the external features of the type specimen, therefore they are considered as identical with *O. potanini*. The genitalia of these specimens are studied, and those of both sexes are described and illustrated here for the first time. The formerly supposed identity of *O. potanini* with *O. roseomarginata* (Hreblay and Ronkay, 1998) is erroneous.

**Distribution.** The species seems to be confined to the mountains of the eastern and north-eastern borders of the Tibetan plateau.

***Odontestra roseomarginata* Draudt, 1950**

(Figs 9, 10, 52, 53)

*Type material examined.* syntype ♂, [China], Hoengshan (900 m), Provinz Hunan, 14.5.1933. H. Höne, slide No. HM8324 (coll. ZFMK), designated here as lectotype. Additional material examined: 1 ♂, China, Fukien, Kuatun, 2300 m, 27° 40'N, 117° 40'E, 26.V.1938, J. Klapperich (coll. Hreblay), slide No. HM10971 (♂).

*Redescription.* Male genitalia (Figs 9, 10): uncus short, rather thick, curved, with broader, flattened, densely setose scaphoidal plate ventrally. Tegumen broad, penicular lobes long, narrow. Fultura inferior large, weakly sclerotized plate with deep apical incision and fine lateral ribs; vinculum short, strong, U- or V-shaped. Valva slightly asymmetrical, left valva somewhat larger, broader; main part of valva arcuate, costa with a long, narrow, curved subapical process. Cucullus small, narrow, sitting on short neck; corona reduced. Saccus asymmetrical, shorter but broader on right side; clavi also asymmetrical, bigger on right side. Saccular extensions strongly different, large, heavily sclerotized, acute, horn-like on left side; much shorter, flattened, rounded on right side; harpae symmetrical, long, slender, arcuate. Aedeagus short, tubular, rather thick; carina with two long sclerotized bars, one of them sparsely, finely dentate. Vesica short, inflated, membranous, with short, acute, broad-based cornutus.

*Distribution.* The species is known from the SE part of mountain bordering the Tibetan plateau in China, occurring south and south-east from the area of *O. potanini*; its range overlaps partly with that of *O. atuntseana*.

***Odontestra laszlogabi* sp. nov.**

(Figs 11, 12, 54)

*Types.* Holotype: ♂, Taiwan, Prov. Ilan, 1200 m, Ming Chyr Forest Recreation Area, 17.V.1997, leg. G. László & Gy. M. László, slide No. RL6017 (coll. G. Ronkay). Paratypes: Taiwan. Prov. Taichung: 1 ♀, Hui Sun Experimental Forest, Guandashi Lter site, 950 m, 24° 04'49"N, 121° 02'08"E, 12–13.IV.1997, leg. Peregovits & Kun (HNHM Bp.). Prov. Nantou: 1 ♀, Tungpu, 24–25.IV.1997, leg. S.T. Kovács (coll. Kovács); 2 ♂, 2 ♀, Shenmu, 1300 m, 28.III.1992, 25.IV.1992, 24.IX.1994, leg. C.M. Fu (coll. Fu), slide No. RL6233 (♀).

*Diagnosis.* The new species is the easternmost member of the genus, an allopatric sibling species of *O. roseomarginata*. These two species are similarly small in size with shorter forewings, concolorous hindwing and with relatively short, less conspicuous suborbicular patch. *O. laszlogabi* differs externally from *O. roseomarginata* by its much paler, pinkish-ochreous marginal stripe, smaller, sharply defined orbicular stigma, stronger, more whitish reniform stigma and the less strong, more sinuous subterminal line. The male genitalia of the two species are very similar, but the saccular extensions of the new species are shorter, weaker, especially on left valva, the curved costal process is situated more proximally, the clavi are longer and the falciform basal plate of the vesica has stronger dentition.

*Description.* Wingspan 32–33 mm, length of forewing 15–16 mm. Male. Head and thorax dark



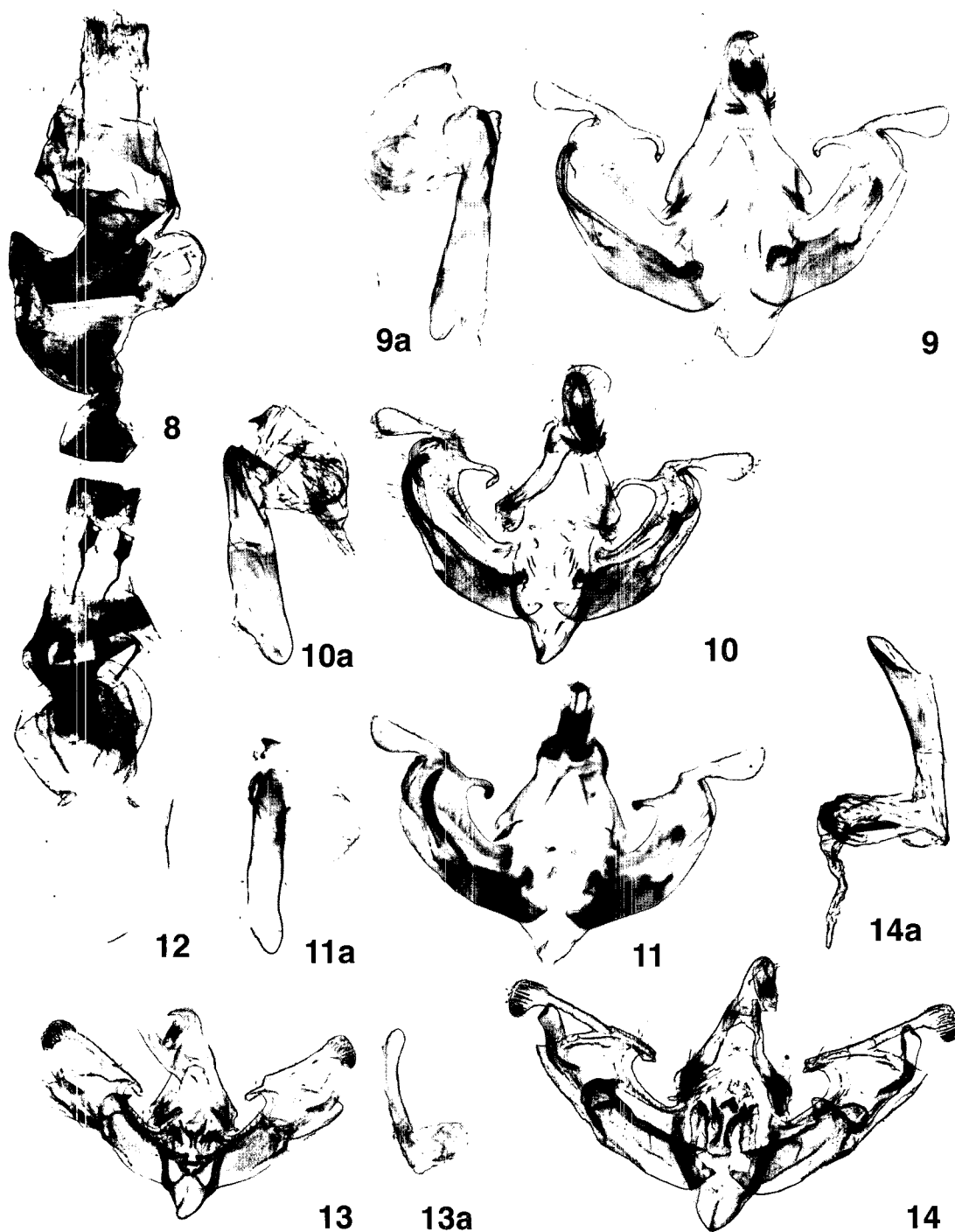
violet-brown with some red-brown, collar and tegulae marked with blackish-brown hairs. Palpus short, porrect, antenna very shortly ciliate. Abdomen paler, more greyish, dorsal crest absent. Forewing short, high triangular, with apex finely pointed. Ground colour deep, shining violet grey, irrorated with dark brown and ochreous grey; costal area with pinkish scales; inner margin with a wide pinkish-ochreous stripe. Wing pattern conspicuous; subbasal, ante- and postmedial crosslines sharply defined, double, sinuous, blackish filled with pinkish grey. Basal area narrow, marked with blackish brown patches. Median area broad, orbicular stigma small, rounded; reniform larger, elliptical, both stigmata encircled with black, latter also with pale ochreous white, their filling slightly dilute; claviform very large, rounded, blackish, suborbicular patch rather indistinct, long, lower half ochreous-whitish. Subterminal more or less continuous, whitish line, defined by quadratic spot at costa and a few rounded or triangular arrowhead-spots. Terminal line fine, dark brown, marked with rounded spots between veins; cilia as ground colour, chequered with ochreous. Hindwing shining, suffused strongly with greyish brown; veins dark; discal spot obsolete; marginal suffusion broad, grey brown. Terminal line ochreous; cilia dark brown spotted finely with ochreous. Underside of wings ochreous white, forewing and costal area of hindwing suffused intensely with dark greyish brown; veins and traces of transverse lines and discal spots somewhat darker. Female: Similar to male, slightly larger, paler markings (stripe of inner margin, suborbicular patch, subterminal line) somewhat more expressed, more whitish.

Male genitalia (Fig. 11): Uncus short, rather thick, curved, with a broader, flattened, densely setose scaphoidal plate ventrally. Tegumen high, broad, penicular lobes long, narrow. Fultura inferior relatively weak, subdeltoidal, with large but weak, ear-like satellite plates; vinculum short, V-shaped. Valva slightly asymmetrical, left valva somewhat larger, broader; main part of valva arcuate, costa with long, slender, curved subapical process. Cucullus small, narrow, sitting on short neck; corona reduced. Left and right sacculi asymmetrical, right sacculus shorter but broader; their distal extensions different, large, heavily sclerotized, acute, horn-like on left side, much shorter, flattened, rounded on right side. Clavus relatively small, wrinkled, truncate triangular with a dense bundle of short, fine sensory setae. Harpae symmetric, long, slender, arcuate. Aedeagus short, tubular; dorsal plate of carina strong, bill-like. Vesica everted ventrally, recurved, large, inflated, membranous, with falciform, densely serrate basal plate and rather small, conical, apically dentate subbasal cornutus; terminal part tubular, projected ventro-laterally.

Female genitalia (Fig. 12): Ovipositor short, broad, papillae anales quadrangular, posterior gonapophyses slender, fine, with large, flattened caudal plates. Ostium bursae broad, short, trapezoidal, proximally strongly tapering. Ductus bursae short, flattened, sclerotized, more or less quadrangular. Cervix bursae large, discoidal, membranous, inner surface with fine, dense scobination and with minute, hair-like spiculi. Corpus bursae elliptical-sacculiform, weakly membranous.

*Bionomics and distribution.* The species is presumably endemic to Taiwan. The known specimens were found in humid, mixed forests at medium high altitudes. The species has, according to the data, two generations per year, at the early spring and in the autumn.

*Etymology.* The new species is dedicated to Mrs G. ("Gabi") László.



**Figs 8-14.** 8, *ditto*, female, China; 9, *O. roseomarginata* Draudt, 1950, lectotype; 10, *ditto*, male, China; 11, *O. laszlogabi* sp. nov., holotype; 12, *ditto*, paratype female; 13, *O. simillima* (Moore, 1882), lectotype; 14, *ditto*, male, Pakistan.

***Odontestra simillima* (Moore, 1881)**

(Figs 13, 14, 15, 60)

*Type material examined.* Syntype ♂, "Punjab, Solun", "Moore Coll., 94–106", "Type" "Noctuidae Brit. Mus. slide No. 4080" (coll. BMNH, London), is designated here as lectotype. The specimen is labelled as "Type" (= holotype), but as no information about the number of the specimens is given in the original description, it should be considered as syntype. Thus, the lectotype designation is necessary due to its allopatric sibling species, *O. atra*. *Additional material examined.* Pakistan: 1 ♂, NW-Frontier, Murree, 1700 m, 17.VII.1979, leg. W. Thomas (coll. Plante); 3 ♂, 4 ♀, 30 km N Murree, Ayubia, 732403E, 340175N, 2650 m, VI–VII.1998, leg. G. Csorba, GY. Fábíán, B. Herczig and L. Ronkay; 6 ♂, 5 ♀, Himalaya Mts, Kaghan valley, Tathabaya, 2300 m, 732701"E, 343648"N, 7.VII. and 22–23.VII.1998, leg. G. Csorba and L. Ronkay (coll. Fábíán, Herczig, G. Ronkay and HNHM), slide Nos. RL6647, HM10970 (♂), RL6648 (♀).

*Diagnosis.* *O. simillima* is the allopatric western sibling species of *O. atra* (Central Nepal) (Fig. 59). The difference between the external appearance and the male genitalia is discussed in the diagnostic part of the description of the latter species (Hreblay and Ronkay, 1998). The female genitalia of the two species are also similar to type, the ostium bursae of *O. simillima* is weaker, the ductus bursae is somewhat stronger in sclerotization, and the lateral sclerotized part of the corpus bursae is smaller, narrower.

*Redescription.* Wingspan 31–36 mm, length of forewing 14–16 mm. Head and thorax blackish, mixed with grey and a few ochreous hairs. Abdomen much paler, ochreous grey, dorsal crest absent. Forewing rather broad triangular, with apex finely pointed, outer margin evenly arcuate. Ground colour blackish grey, irrorated with paler brown and bluish grey. Wing pattern variably strong, rather distinct; crosslines double, blackish, sinuous; subterminal more or less continuous, fine, whitish. Orbicular and reniform stigmata encircled with fine ochreous white lines, their filling regularly dark, sometimes slightly paler than ground colour. Claviform large, blackish, rounded apically; suborbicular signum rather sharply defined, long, fine, whitish, defined by paler greyish patch; inner margin with a broad ochreous–whitish stripe. Hindwing shiny whitish–ochreous; veins covered with brown; marginal suffusion broad, grey–brown.

Male genitalia (Figs 13, 14): Uncus bilobate, with rather long, arcuate extension above flattened, setose distal part of uncus. Tegumen high, narrow, apical end with two rounded, sclerotized plates, penicular lobes long, narrow. Fultura inferior sand-clock-shaped, with longer apical arms, vinculum strong, thick. Valva broad; cucullus small, sitting on long, narrow neck, corona represented by three rows of strong setae. Left and right sacculi asymmetrical, their distal extensions different, large, flattened claw-like on left side, bilobate, more rounded on right side. Clavus large, flattened, more or less falciform, densely setose; harpe long, laminated; apical third heavily sclerotized. Costal plate large, rounded, upper part with strong crest continuing in longer, sclerotized dorsal process. Aedeagus short, tubular, dorsal plate of carina strong, bill-like. Vesica saccate, membranous, with short, thorn-like, apically dentated medial cornutus, sitting on semiglobular, small diverticulum.

Female genitalia (Fig. 15): Ovipositor rather strong, short, broad, papillae anales quadrangular. Ostium

bursae fine, narrow, sclerotized, fused with flattened, sclerotized; ductus bursae quadrangular, with fine proximal crests at junction to corpus bursae. Cervix bursae membranous, globular. Main part of corpus bursae flattened, more or less quadrangular sac-like, inner surface partly densely granulose-scobinate, partly covered with minute, hair-like spiculi. Proximal part of corpus bursae very small, membranous, appendix-like.

*Bionomics and distribution.* *O. simillima* inhabits the medium-high forested regions in the north-western Himalayan region.

### ***Odontestra incisa* (Moore, 1881)**

(Figs 21, 63, 64)

*Type material examined.* Four syntypes, belonging to two species. Three specimens are conspecific with *O. submarginalis*, while the fourth one, a female, is a representative of a distinct species, mixed with *O. potanini* by authors (see also Yoshimoto 1994, Hreblay and Ronkay 1998). We intend not to give a new name of this disputed species but save the Moore's name for it, therefore this fourth syntype, with the data: (♀), "Dalhousie N.W. Himalaya", "Type", "gen. prep. Hreblay N: 10978", "Noctuidae Brit. Mus. slide No. 15655" (coll. BMNH, London) is designated here as a lectotype.

*Additional material examined.* Pakistan: Prov. NW-Frontier, Kagan valley: 1 ♂, 8 km E of Kawai, 2180 m, 5.VIII.1998; 2 ♂, 8 km E of Kawai, 2180 m, 15.VII.1998, leg. T. Csövári & L. Mikus (coll. Hreblay). Nepal: 1 ♂, West Nepal, 8 km N of Surkhet, 1800 m, 26.VII.1996, leg. M. Hreblay & B. Szin; Annapurna Himal: 4 ♂, 1 ♀, Bagarchhap, 2200 m, 9.VI.1996, 84° 20'E, 28° 32'N; 1 ♂, 1 km S of Tal, 1700 m, 8.VI.1996, 84° 23'E, 28° 28'N, leg. M. Hreblay & Cs. Szabóky; Ganesh Himal: 8 ♂, 3 ♀, 3 km NE of Sunpati, 2300 m, 13.VI.1993, leg. M. Hreblay & G. Csorba; 1 ♂, 2 km E of Thangjet, 2260 m, 20.VII.1995, 85° 19'E, 28° 11'N, leg. M. Hreblay & T. Csövári; 1 ♀, 2 km E of Thangjet, 2165 m, 16.X.1995, 85° 19'E, 28° 11'N, leg. M. Hreblay & L. Bódi; 1 ♂, 2 km E of Thangjet, 2260 m, 17.IX.1994, 85° 13'E, 28° 10'N, leg. M. Hreblay & T. Csövári; Solu Khumbu Himal: 2 ♂, 10 km S of Lukla, Bupsa, 2300 m, 3.VII.1993, leg. M. Hreblay & G. Csorba (coll. Hreblay), slide Nos HM5517, HM7222, HM9496, HM9627, HM11379, HM11379, HM11410 (♂), HM5173 (♀).

*Diagnosis.* The detailed comparison of *O. incisa* with *O. potanini* is given under the diagnosis of this latter species. The male genitalia are illustrated by Yoshimoto (1994), the female genitalia are described and illustrated here for the first time.

*Redescription.* Female genitalia (Fig. 21): Ovipositor medium-long, conical; papillae anales more or less triangular, setose; gonapophyses slender, fine. Ostium bursae sclerotized, broad, rather long, trapezoidal, with arcuate edges and shallow but broad caudal incision. Ductus bursae also sclerotized, short, broad. Apical part of corpus bursae flattened, granulosely sclerotized, long, infundibuliform; fundus bursae small, membranous, elliptical-ovoid, connected to apical part with narrow neck; cervix bursae small, semiglobular, membranous.

*Bionomics and distribution.* The species is widely distributed in the lower and medium-high forested regions of the southern and south-western parts of the Himalayan massif, inhabiting mostly subtropical and hilly, mixed deciduous and coniferous woodlands, often also agricultural and strongly disturbed

biotopes. It has generally two, partly overlapping, generations from the late spring to the mid-autumn.

***Odontestra attila* sp. nov.**

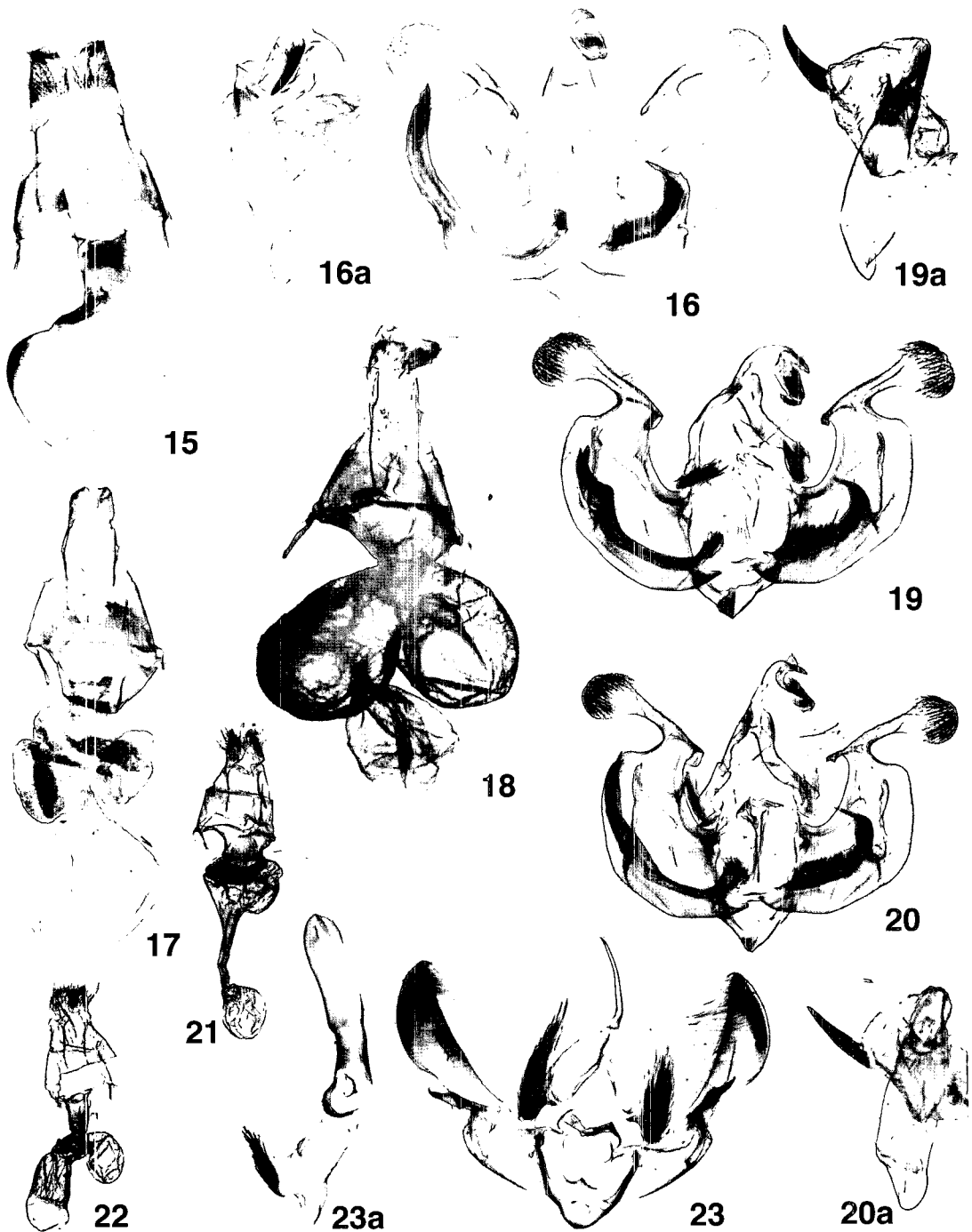
(Figs 19, 20, 57, 58)

*Types.* Holotype: ♂, Thailand, Changwat Chiang Mai, 2 km S of Ban Kum, 1700 m, 5–6.VII.1998, leg. István Soós & Attila Szab, slide No. HM11220 (coll. Hreblay). Paratype: 1 ♂, with the same data as the holotype (coll. Hreblay), slide No. HM11219 (♂).

*Diagnosis.* The new species belongs to the *O. incisa* – *O. atuntseana* species-group. *O. attila* differs externally from the related taxa mostly by its somewhat broader, more distinct, whitish reniform stigma; in addition, the forewing ground colour is generally darker than that of *O. atuntseana*. The male genitalia are very similar to those of *O. atuntseana*, but the process of the left sacculus is shorter, and the cornutus of the vesica is considerably larger.

*Description.* Wingspan 30–32 mm, length of forewing 13.5–15 mm. Head violet brown, collar, tegulae and thorax shining dark grey; collar marked with black stripe. Palpus short, porrect. Antenna very shortly ciliate. Abdomen much paler, greyish brown; dorsal crest absent. Forewing elongate, with apex finely pointed. Ground colour deep, shining violet-grey; wing pattern black and pale whitish. Costal area grey with purple scales; inner margin with a wide milky whitish stripe. Basal and antemedial crosslines double, somewhat darker than ground colour, filled with slightly paler scales; postmedial line sinuous, blackish. Basal area narrow, marked with blackish brown patches; median area broad, stigmata large, well defined. Orbicular small, elongate, filled by whitish scales; reniform large, whitish, incompletely encircled with fine blackish line, lower third with pointed inner lobe, filled with dark grey scales. Claviform very large, black, triangular with rounded apex. Subcellular whitish patch long, broad, its lower half cleaner, sharper. Subterminal line more or less continuous, whitish, finely waved, defined by a larger, quadratic whitish spot at apex and by rather diffuse blackish arrowheads at inner side. Terminal line very fine, blackish, followed by rounded spots between veins; cilia as ground colour, with fine, ochreous medial line. Hindwing shining ochreous white, suffused strongly with greyish brown; veins darker; discal spot small, obsolete; marginal area broad, grey-brown. Terminal line fine, dark brown; cilia ochreous white with pale brown medial line. Underside of forewing greyish, that of hindwing whitish except costal area; discal spots and transverse lines obsolescent.

Male genitalia (Figs 19, 20): Uncus short, rather thick, curved, with broader, flattened, densely setose scaphoidal plate ventrally. Tegumen high, broad, penicular lobes long, narrow. Fultura inferior relatively weak, subdeltoidal, with large but weak, ear-like satellite plates; vinculum short, V-shaped. Valva slightly asymmetrical, left valva somewhat larger, broader. Main part of valva arcuate; costa with rather small, strong subapical process. Cucullus relatively large, rounded apically, its neck short, strong; corona well-developed, dense. Sacculus asymmetrical: right sacculus shorter, broader; saccular extensions also different: large, heavily sclerotized, acute, horn-like on left side, somewhat shorter, flattened, but terminally pointed on right side. Left clavus sclerotized, proximal part with a stronger, terminally finely dentate process; right clavus dentate and densely setose. Harpe symmetrical; basal bars long, slender; apical part short, digitiform, arcuate. Aedeagus short, tubular; carina with sclerotized dorsal plate. Vesica



**Figs 15-23.** 15, *ditto*, female, Pakistan; 16, *O. atuntseana* Draudt, 1950, paralectotype male; 17, *ditto*, lectotype female; 18, *ditto*, paralectotype female; 19, *O. attila* sp. nov., holotype; 20, *ditto*, paratype male; 21, *O. incisa* (Moore, 1881), lectotype; 22, *O. submarginalis* (Walker, 1869) (lectotype of *O. auripicta* (Butler, 1889)); 23, *Xylopolia bella taiwanicola* ssp. nov., holotype.

short, membranous, bent ventrally, recurved dorsally, armed with large, slightly curved, thick medial thorn.

*Bionomics and distribution.* N. Thailand, around 1700 m, (the highest point on the road) in a mixed monsoonic forest.

*Etymology.* The new species is dedicated to the collector, Mr Attila Szabó.

### ***Odontestra atuntseana* Draudt, 1950**

(Figs 16, 17, 18, 55, 56)

*Type material examined.* 1 ♂, 2 ♀, syntypes, one of the females, with the data: [China], Atuntse (Nord Yunnan), Talsohle ca 3000 m, 31.5.1937. H. Höne, slide No. HM8323, is designated here as lectotype (coll. MAK). Paralectotypes: China: 1 ♂, Likiang, Prov. North Yunnan, 17.9.1935, H. Höne; 1 ♀, Likiang (ca 2000 m), Prov. North Yunnan, 16.5.1934. H. Höne (coll. MAK and Hreblay), slide Nos HM8336ö (♂), HM10974 (♀).

*Redescription.* Male genitalia (Fig. 16): Uncus short, rather thick, curved, ventral part with broader, flattened, densely setose, scaphoidal plate. Tegumen high, broad, penicular lobes long, narrow. Fultura inferior weak, subdeltoidal, vinculum short, V-shaped. Valva asymmetrical; left valva larger, broader. Main part of valva arcuate, costa with short, narrow subapical process. Cucullus relatively large, rounded, sitting on long, narrow neck; corona present. Sacculus also asymmetrical; left clavus longer, sclerotized; proximal part with small, sclerotized, densely setose process; right clavus broader, with long, dentate, densely setose crest. Distal extension of left sacculus large, heavily sclerotized, acute, horn-like, extending over valval plate; that of right sacculus much shorter, with apex acute. Harpes symmetrical; basal bars long, slender; apical part short, digitiform, arcuate. Aedeagus short, tubular; dorsal plate of carina sclerotized. Vesica short, recurved, inflated, armed with strong, curved, thorn-like cornutus near base.

Female (Figs 17, 18): Ovipositor medium-long, rather broadly conical; papillae anales short, more or less quadrangular, setose; posterior apophyses slender, fine; anterior apophyses relatively short, thick. Ostium bursae sclerotized, broad, rather long, trapezoidal, ventral plate with arcuate caudal margin; anterior half of dorsal part strongly wrinkled. Ductus bursae sclerotized, short, flattened, with upturned lateral margins. Apical part of corpus bursae large, bilobate; left lobe with broad, membranous appendix bursae; medial part with sclerotized, wrinkled plate near ductus bursae; right lobe strongly rugose-scobinate. Fundus bursae rather small, membranous, elliptical-ovoid, connected to apical part with narrow neck.

*Bionomics and distribution.* The life history of the species is poorly known, the specimens were collected at medium high altitudes in North Yunnan, the collecting data suggesting the presence of two distinct generations.

### ***Odontestra submarginalis* (Walker, 1869)**

(Figs 22, 61, 62)

*Type material examined.* Holotype of *O. submarginalis* (without locality label). Syntypes of *O.*

*auripicta* (Butler, 1889), the synonymization of the taxon with *O. submarginalis* is given in Hreblay and Ronkay (1998). the lectotype is here designated: ♀, "Dharmasala, Hocking, 84-59", "Neuria auripicta type Butler", "Type", "gen prep Hreblay N: 10979", "Noctuidae Brit. Mus. slide No. 15656" (coll. BMNH, London).

*Additional material examined.* Pakistan: Prov. NW-Frontier: 1 ♀, 35 km N of Murree, Ayubia NP, 2300 m, 1.VIII.1998; 1 ♂, 1 ♀, 28 km N of Murree, Ayubia NP, 2300 m, 2.VIII.1998, leg. T. Csövári & L. Mikus (coll. Hreblay). Nepal: West-Nepal: 4 ♂, 1 ♀, 8 km N of Surkhet, 1800 m, 26.VII.1996; 1 ♂, 11 km N of Dailekh, 2350 m, 29.VII.1996, leg. M. Hreblay & B. Szin; Dhaulagiri Himal: 1 ♂, 4 km NW of Ghasa, 2500 m, 2.VI.1997, 83° 37'E, 28° 38'N; 1 ♂, 4 km NE of Tukuche, 2600 m, 3.VI.1997, 83° 40'E, 28° 43'N, leg. Karma Sherpa; Annapurna Himal: 8 ♀, 1 km S of Tal, 1700 m, 8.VI.1996, 84° 23'E, 28° 28'N; 1 ♂, 1 ♀, Bagarchhap, 2200 m, 9.VI.1996, 84° 20'E, 28° 32'N; 1 ♂, Talbagar, 1950 m, 24.VI.1996, 83° 39'E, 28° 34'N, leg. M. Hreblay & Cs. Szabóky; Ganesh Himal: 1 ♂, Kamalang, 1850 m, 10.IV.1995, 85° 11'E, 28° 03'N, leg. M. Hreblay & L. Németh; 3 ♂, 1 ♀, 3 km NE of Sunpati, 2330 m, 13.VI.1993; 1 ♂, 1 ♀, Syabrubensi, 1520 m, 12.VI.1993, leg. M. Hreblay & G. Csorba; Mt. Kalinchok: 1 ♂, 6 km NNE of Muldi (Murre), 2835 m, 8.VIII.1995, 85° 58'E, 27° 23'N; 2 ♂, 6 km NNE of Muldi (Murre), 2835 m, 5.VIII.1995, 85° 58'E, 27° 23'N; 1 ♂, 2 km WNW of Muldi (Murre), 2200 m, 9.VIII.1995, 85° 54'E, 27° 20'N, leg. M. Hreblay & T. Csövári; Solu Khumbu Himal: 1 ♂, 1 ♀, 10 km S of Lukla, Bupsa, 2300 m, 3.VII.1993, leg. M. Hreblay & G. Csorba; East-Nepal: 1 ♂, Surke Danda, 4 km NE of Suketar, Lali Kharka, 2350 m, 9.V.1997, leg. M. Hreblay & L. Szécsényi; 1 ♂, Surke Danda, 2 km NE of Suketar, 2560 m, 15.VI.1998; 1 ♀, Jyaudra Danda, Amjilassa, 2450 m, 30.VI.1998; 1 ♂, Milke Danda, Gursa, 2100 m, 3.VII.1998, leg. M. Hreblay & B. Benedek (coll. Hreblay), slide Nos HM5172, HM7412, HM7413, HM7680, HM8039, HM9626, HM11394, HM11523 (♂), HM5518 (♀).

*Diagnosis.* The male genitalia were illustrated by Yoshimoto (1994), and the female genitalia is described here as follows (Fig. 22): ovipositor conical, rather strong; papillae anales short, quadrangular, setose; gonapophyses slender, fine. Ostium bursae heavily sclerotized, long, narrow, more or less flattened; ductus bursae very short, with flattened sclerotized plates, extending towards caudal part of corpus bursae. Cervix bursae elliptical, membranous with fine scobination, separated rather strongly from corpus bursae. Posterior two-third of corpus bursae scobinate, strongly ribbed with fine, sclerotized longitudinal ribs; fundus bursae semiglobular, membranous, weakly scobinate.

*Bionomics and distribution.* *O. submarginalis* is the most widespread Asian species of the genus, distributed from the Pakistani Himalayas to northern Indochina and SE China, occurring mostly in the subtropical, lower and medium-high elevations.

### ***Xylopolia bella taiwanicola* ssp. nov.**

(Figs 23, 24, 65)

*Types.* Holotype: ♂, Taiwan, Prov. Hualien, Taroko N.P., Hsipan, 270 m, 5.IV.1997, leg. G. Csorba & L. Ronkay, slide No. RL5958 (coll. HNHN). Paratypes: Taiwan. Prov. Taoyuan: 1 ♂, Ming Chyr Forest Recreation Area, 1200 m, 30-31.III.1997, leg. G. Csorba & L. Ronkay; 1 ♂, 2 ♀, 16 km E of



Fuhsing, 870 m, 5–6.IV.1996, 121°24'E, 24°50'N, leg. T. Csövári & P. Stéger. Prov. Nantou: 1 ♀, Huisun Forest Area, 500 m, 15 km N Puli, 12–13.IV.1997, leg. G. Csorba & L. Ronkay; 1 ♂ (3624), 1 ♀ (6779), Huisun, 9.III.1984, leg. B.S. Chang. Prov. Taichung: 1 ♀, Hui Sun Experimental Forest, Guandashi LTER site, 950 m, 24°04'49"N, 121°02'08"E, 12–13.IV.1997, leg. Peregovits & Kun. Prov. Ilan: 1 ♂, Fushan, 31.III.1995, leg. Warneke (HNHM Bp., TFRi Taipei, NMNS Taichung, M. Hreblay and G. Ronkay), slide Nos HM8710, RL5949 (♂), HM8711, RL5950 (♀).

*Diagnosis.* The populations occurring in Taiwan differ from the other subspecies (*X. bella* (Butler, 1881): Japan; *X. b. koreana* Kononenko & Ronkay, 1996: Korea; *X. b. amamiensis* (Kishida & Yoshimoto, 1979: Japan, Amami Isl.) by their paler, less darkened cell, almost unicolorous lower half of medial area and more sharply defined crosslines. The genitalia of both sexes show only slight differences compared with those of the Japanese populations, and are illustrated in Figs 23, 24.

*Distribution.* Taiwan.

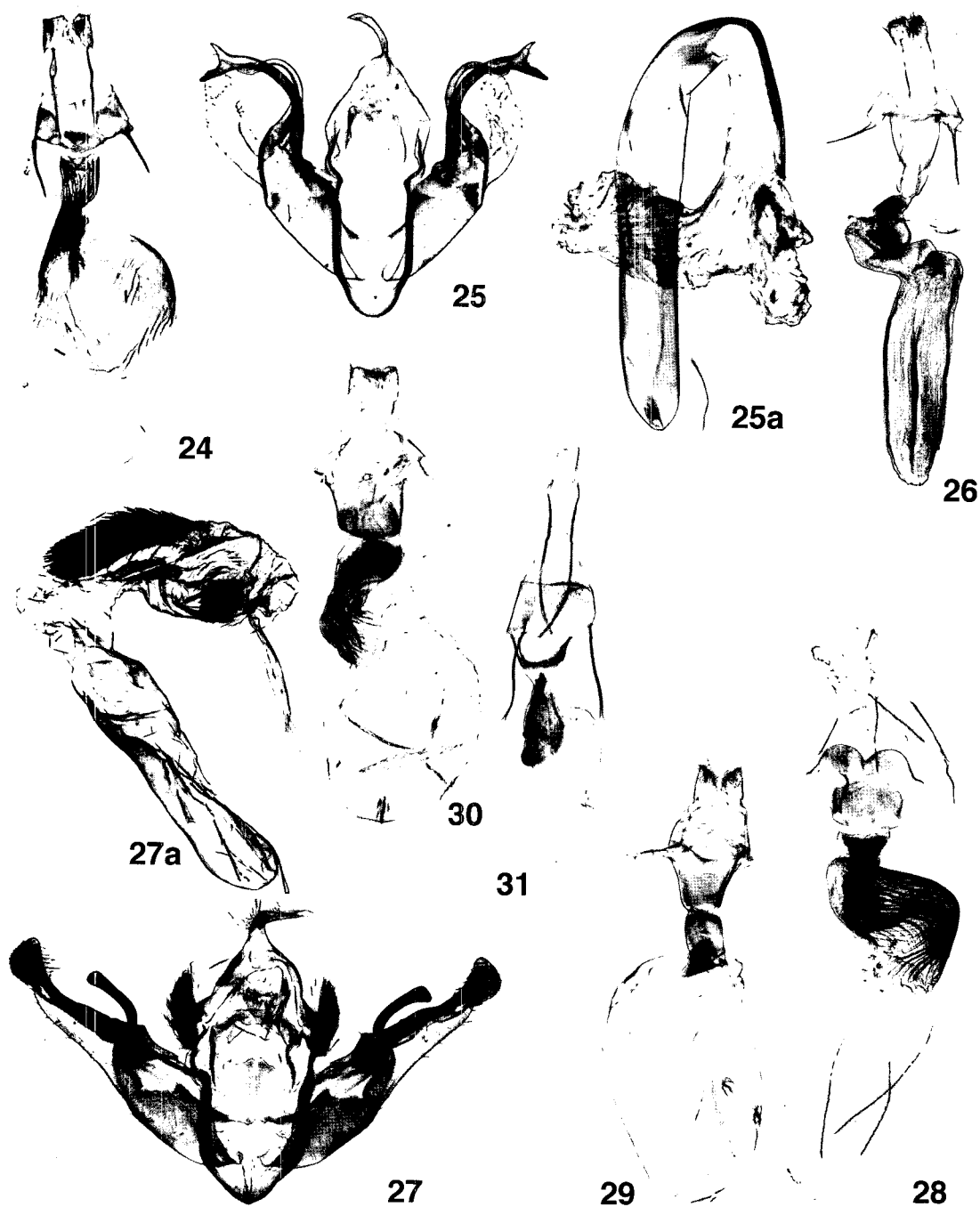
### ***Xylena plumbeopaca* sp. nov.**

(Figs 25, 26, 66)

*Types.* Holotype: ♂, Taiwan, Prov. Nantou, 3 km SW of Tsuifeng, 2100 m, 12.XII.1997, 121°10'E, 24°06'N, leg. Sándor Simonyi & Attila Szabó, slide No. HM10130 (coll. Hreblay). Paratypes: Taiwan. Prov. Taoyuan: 1 ♀, 16 km E of Fuhsing, 900 m, 30.XI.–1.XII.1997, 121°27'E, 24°50'N, leg. S. Simonyi & A. Szabó. Prov. Kaohsiung: 1 ♀, 26 km SE of Taoyuan, 1370 m, 4.XII.1997, 120°52'E, 23°17'N, leg. S. Simonyi & A. Szabó (coll. Hreblay & Simonyi). Prov. Chiayi: 1 ♂, Tatchia-Anpu, 15.XII.1990, L.P. Shyu, No. 1282–6608 (NMNS Taichung), slide No. HM10138 (♀).

*Diagnosis.* The new species belongs to the *Xylena formosa* Butler, 1878 species-group, which was discussed recently by Kononenko & Ronkay (1998). The species of this group are often confusingly similar externally, thus the study of the genitalia is required for the correct identification. The male genitalia of *X. formosa* differ conspicuously from those of the other three species, *X. confusa* Kononenko & Ronkay, 1998, *X. nepalina* Yoshimoto, 1993 and *X. plumbeopaca* sp. nov., those of the last three taxa are much closer. *X. plumbeopaca* is somewhat smaller and darker than the other species of the group, and the underside of the hindwing is darkened in both sexes. Its male genitalia differ from those of *X. confusa* and *X. nepalina* by their strongly bifurcate cuculli, longer harpe and longer, ventrally broader fultura inferior, and by shorter, more curved ventral lobe of the valva. The female genitalia of the three species are also very similar, but the ostium bursae of the new species is shorter, distally more broadened, more calyculate than those of *X. nepalina* and *X. confusa*.

*Description.* Wingspan 46–48 mm, length of forewing 21–22 mm. Male. Palpus short, abrupted, covered with dark brown scales. Head and collar ochreous, latter with fine blackish apical line. Thorax covered by long, dark plumbeous and brown hairs. Abdomen paler greyish. Forewing elongate, with apex pointed; outer margin finely crenulate. Ground colour greyish brown with plumbeous shine; outer part of wing slightly paler with more intense violet shining. Basal and antemedial crosslines rather indistinct, dark greyish, wide, double, filled with paler whitish grey scales. Postmedial line diffuse, double; inner line stronger; outer line represented by darker spots on veins. Orbicular stigma large, consisting of two circles



**Figs 24-31.** 24, *ditto*, paratype female; 25, *Xylena plumbeopaca* sp. nov., holotype; 26, *ditto*, paratype female; 27, *Taivaleria rubrifasciata* sp. nov., paratype male; 28, *ditto*, paratype female; 29, *Hemiglaea costalis* (Butler, 1789), female, N Korea; 30, *H. radiata* sp. nov., holotype; 31, *Nyctyciomorpha plagiogramma* (Hampson, 1906), female, Taiwan.

forming an 8-mark, incompletely encircled with black scales, filled with dark grey at middle. Reniform large, dark greyish brown with fine black outline; claviform obsolescent, pale greyish patch. Subterminal line more or less continuous, waved, pinkish, defined by darker red-brownish fasciae on both sides. Terminal line fine, dark brown; cilia as ground colour, its base ochreous. Hindwing dark greyish brown, discal spot diffuse but present; cilia slightly paler grey-brown. Underside of wings dark greyish-brown except pale marginal areas, surrounding of hindwing discal spot also paler.

Male genitalia (Fig. 25): Uncus slender, short, slightly dilated apically. Tegumen narrow, rather weak, vinculum strong but short, U-shaped. Fultura inferior long, subdeltoidal, with relatively deep apical incision. Valva large; proximal half broad, sclerotized; distal half bifurcate; costal part heavily sclerotized, narrow, curved at middle, with bifid, acute apex; ventral part a membranous-wrinkled, arcuate lobe. Sacculus strong, more or less triangular; clavus rounded, sclerotized and setose. Harpe very long, slender, sclerotized, more or less S-shaped, extending over costa. Aedeagus long, cylindrical, distal end slightly curved; carina with long, slender, sclerotized dorsal bar. Vesica broadly tubular, recurved dorsally; basal part with small; conical diverticulum at apex of process of carina; another larger diverticulum armed with long, but very weak cornutus.

Female genitalia (Fig. 26): Ovipositor weak, gonapophyses slender and weakly sclerotized; intersegmental membrane with double, invaginated (eversible) membranous appendices. Ostium bursae elongate, sclerotized, posterior part more or less calyculate with straight caudal margin. Ductus bursae shorter, narrower, stronger sclerotized and folded. Appendix bursae short, rounded, wrinkled. Corpus bursae long, sacculiform, with two long and two somewhat shorter, ribbon-like signa.

*Bionomics and distribution.* This species is presumably endemic to Taiwan. Few specimens were collected in different regions of the island, in rather low to medium-high forested areas, in November–December.

*Remarks.* This species is illustrated by Chang (1991: 166 fig: 112) as *X. formosa* Butler.

### ***Taivaleria* gen. nov.**

Type species: *rubrifasciata* sp. nov.

*Diagnosis.* The closest relative of the new genus is *Antivaleria* Sugi, 1980. *Taivaleria* differs from *Antivaleria* by its more robust, shorter body, finer, not serrate but filiform male antenna with shorter fasciculate cilia, smaller eyes, shorter, more globular third segment of labial palp, strongly crenulate outer margin of forewing and some features of the genitalia. The male genitalia can be characterized, comparing with those of *Antivaleria* (see Hreblay and Ronkay 1997, figs 54–57) by the narrow, distally tapering, medially not dilated uncus, broad, flat, pentagonal fultura inferior, without apical (dorsal) process, minute clavi, broader distal part of valva with smaller, rounded, not foot-shaped cuculli, covered densely with strong spine-like setae, shorter, weaker, stick-like harpe, thicker aedeagus without specialized carina, and the more simple, shorter, broader vesica, without cornutus but with huge field of long, acute spinules. The female genitalia of *Taivaleria* have larger, stronger ostium bursae, flattened, shorter ductus bursae, without lateral lobe, and much stronger, larger, sclerotized and ribbed cervix bursae

than those of the species of *Antivaleria* (see Hreblay and Ronkay 1997, Figs 61–62).

*Description.* Medium-sized species, wingspan around 40 mm. Body robust, thorax and abdomen strong, broad. Eyes rather small, frons smooth, with two double-peaked tufts above and below base of antenna. Palpus short, more or less porrect. Male antenna shortly ciliate with fasciculate cilia, that of female filiform, sparsely ciliate. Forewing elongate, rather narrow, with apex acute, outer margin strongly crenulate. Hindwing rounded. Wing pattern sharply defined, with full noctuid pattern.

Male genitalia (Fig. 27): Uncus short, flattened, distally slightly tapering, with apex quadrangular. Tegumen medium-high, wide, peniclar lobes narrow, densely setose. Fultura inferior sclerotized, high, flat, pentagonal; vinculum short, strong. Valva elongate; basal half broader; distal half tapering, straight; costa heavily sclerotized, with small, triangular medial extension and fine, acute proximal process; subapical costal extension short, fine, spine-like. Cucullus small, more or less quadratic, with apex pointed, covered densely by strong setae. Sacculus relatively short, broad, sclerotized; clavus narrow, sclerotized bar terminated in small, setose distal process. Harpe long, strong, slender, straight, apically slightly dilated, with apex rounded. Aedeagus long, rather thick, cylindrical, arcuate; carina with fine, short lateral bars. Vesica broadly tubular, everted forward, recurved ventrally; its walls membranous with fine scobination at medial and distal thirds; medial part with long, broad ventro-lateral cornuti field covered by long, fine, acute spinules, inner curve with five narrow, sclerotized, parallel bars; terminal part with rounded, large diverticulum covered with minute, short spiculi.

Female genitalia (Fig. 28): Ovipositor relatively short, weak; gonapophyses slender, fine. Ostium bursae large; ventral plate trapezoidal, with large, medially deeply incised, rounded caudal lobe; dorsal plate considerably smaller, rounded quadrangular. Ductus bursae medium-long, flattened, connected with ostium with short, membranous neck. Dorsal surface membranous with strong wrinkles; ventral surface with broad, strongly sclerotized medial lamina. Appendix bursae large, more or less quadrangular, sclerotized and ribbed. Corpus bursae elliptical, membranous with fine wrinkles and with four long signum-stripes.

### ***Taivaleria rubrifasciata* sp. nov.**

(Figs 27, 28, 67)

*Types.* Holotype: ♂, Taiwan, Prov. Taoyuan, Ming Chyr Forest Recreation Area, 1160 m, 10–11. XII.1997. leg. Gy. Fábíán (coll. Fábíán). Paratypes: Taiwan. Prov. Taoyuan: 2 ♂, 2 ♀, with the same data as the holotype (coll. Fábíán, G. Ronkay & HNHM); 2 ♂, 16 km E of Fuhsing, 900 m, 30.XI.–1.XII; 14.XII.1997, 121° 27'E, 24° 50'N; 1 ♂, 7 km E of Fuhsing, 600 m, 15.XII.1997, 121° 23'E, 24° 49'N, leg. S. Simonyi & A. Szabó (coll. Hreblay & Simonyi). Prov. Ilan: 1 ♀, Fushan, 28.XII.1992, Le Ne 0023 (TFRI, Taipei). Prov. Nantou: 1 ♂, Meifeng, 17.XII.1990, light trap, leg. C.S. Lin (NMNS Taichung). Prov. Taichung: 1 ♂, Anmashan, 2100 m, 1.II.1997, leg. C.M. Fu (coll. Fu), slide Nos HM10140, HM10134, RL6035 (♂), RL6258 (♀).

*Diagnosis.* The new species resembles mostly the members of the genus *Antivaleria* Sugi, 1980 (*A. viridimacula* (Graeser, 1888) and *A. viridentata* Hreblay & Ronkay, 1997) and the *Potnycticia taiwana* (Chang, 1991) species-complex. *Taivaleria rubrifasciata* differs externally from the similar species by

almost all details of the forewing pattern. The most conspicuous features are the presence of the scarlet-red outer line of the postmedial and the much strongly crenulate cilia. The difference in the genitalia of the similar taxa is discussed in the diagnosis of the new genus.

*Description.* Wingspan 40–42 mm, length of forewing 18–19 mm. Both sexes similar. Head and thorax dark reddish brown with some violet shade; vertex, tip of collar, tegulae and tips of thoracic tufts vivid mossy green. Palpus short, more or less porrect. Antenna shortly ciliate. Abdomen dark brownish grey, dorsal crest represented by large tufts on first two segments; anal tuft ochreous brown. Forewing elongate, rather narrow, with apex acute, outer margin strongly crenulate. Ground colour shining, dark brown with fine violet shade, irrorated with vivid mossy green scales, especially along inner margin and in marginal area. Wing pattern sharply defined; costal margin striolate with blackish-grey and greenish; inner margin narrowly reddish. Basal area wide, subbasal and antemedial crosslines double, sinuous, blackish brown filled with green; anal fold with strong black arch. Medial area broad, tapering to inner margin; postmedial line sharply defined, black, oblique and almost straight, defined by fine silvery-white line at inner and scarlet-red line at outer side. Subterminal rather diffuse, mossy green, strongly sinuous, defined by blackish-brown spots and lines on both sides. Orbicular and reniform stigmata large, former rounded, latter more or less quadrate. Orbicular encircled with black, filled with green; reniform outlined with blackish, pinkish and whitish lines, filled with pinkish grey, brown and green; marked with large, quadratic, blackish brown patches on both sides. Claviform big, quadratic, blackish, suborbicular patch large, green. Terminal line row of fine dark greyish arches; cilia ochreous grey mixed with dark brown. Hindwing shining, dark cupreous brown; veins and marginal suffusion even darker; discal spot and transverse line diffuse but recognizable. Terminal line brown; cilia ochreous brown with darker medial line. Underside of wings pale ochreous brown, irrorated with darker grey; inner area of forewing darker grey, costal parts suffused with reddish brown. Discal spots and transverse lines.

The genitalia of both sexes are characterized in the description of the genus.

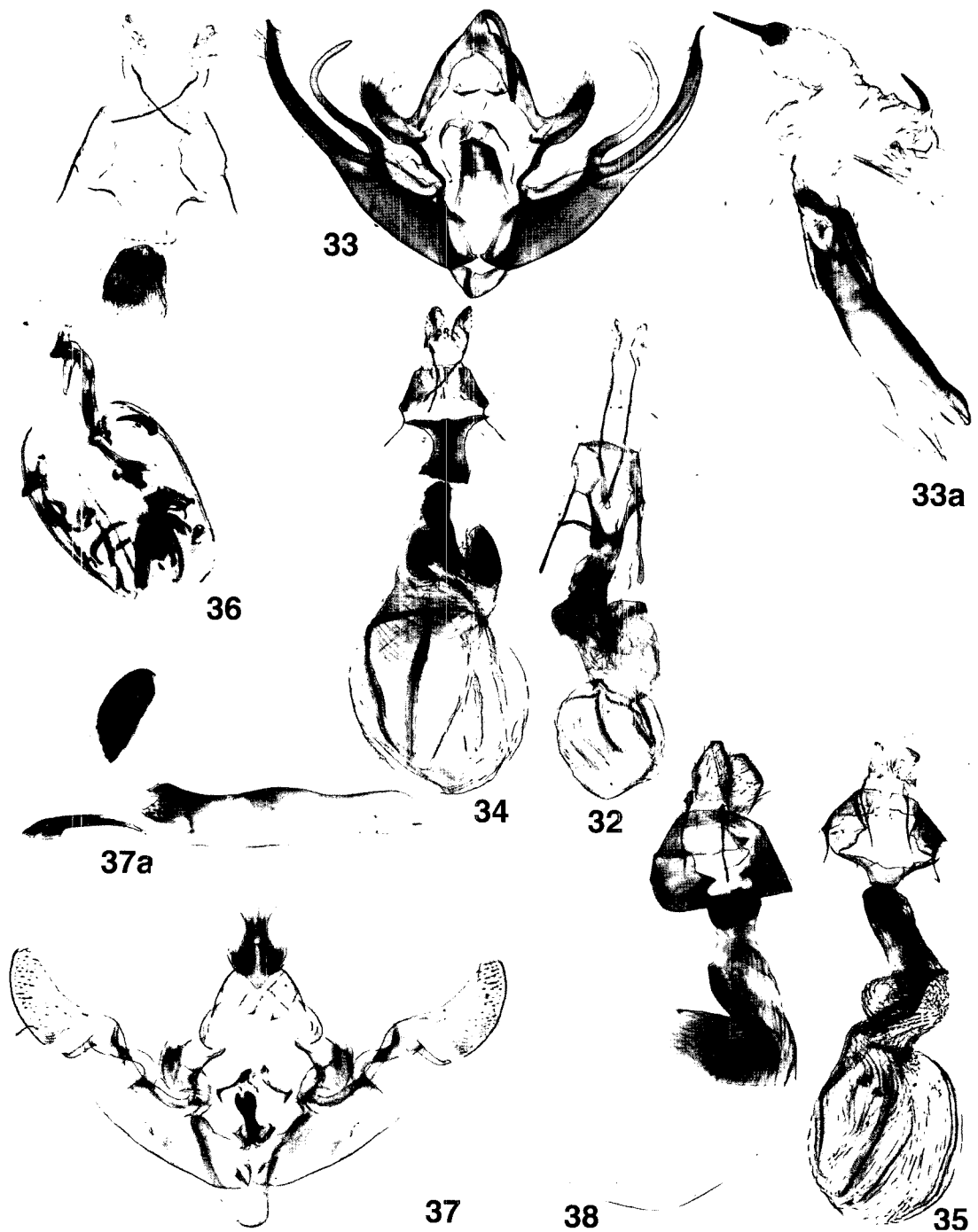
*Bionomics and distribution.* The new species is a characteristic member of the winter fauna of Taiwan, all specimens collected at the early of December are freshly emerged ones. *T. rubrifasciata* is known from the north-eastern part of the island, from rich mixed forests grown at medium high altitudes.

### ***Hemiglaea radiata* sp. nov.**

(Figs 30, 68)

*Types.* Holotype: ♀, Taiwan, Prov. Tai-Tung, Yakou, 2600 m, 3–4.XII.1997. leg. Gy. Fábíán (coll. Fábíán). Paratypes. Taiwan: Prov. Nantou: 2 ♀, 3 km SW of Tsuifeng, 2100 m, 12. & 18.XII.1997, 121° 10'E, 24° 06'N, leg. S. Simonyi & A. Szabó; 2 ♀, 3 km SW of Tsuifeng, 2100 m, 10.II.1997, 121° 10'E, 24° 06'N, leg. S. Simonyi & P. Stéger. Prov. Miaoli: 1 ♀, 35 km E of Tungshih, 2020 m, 19.XII.1997, 120° 50'E, 24° 19'N, leg. S. Simonyi & A. Szabó; 1 ♀, 21 km E of Tungshih, 1335 m, 22.III.1996, 121° 03'E, 24° 19'N, leg. T. Csövári & P. Stéger (coll. Hreblay), slide Nos HM8766, HM10165 (♀).

*Diagnosis.* *H. radiata* differs from its sister species, *H. himalaya* Owada, 1993, and *H. longipennis*



**Figs 32-38.** 32, *Nyctycia signa* sp. nov., holotype; 33, *Fabiania pulla* sp. nov., holotype; 34, ditto, paratype female; 35, *F. satellitia* sp. nov., holotype; 36, *F. marki* sp. nov., holotype; 37, *Asidemia albovitta* sp. nov., holotype; 38, ditto, paratype female.

Hreblay & Ronkay, 1998, by its somewhat larger size and broader forewings with wider basal area. The female genitalia of the three species are similar, but the ostium bursae of *H. radiata* is narrower, longer, the ductus bursae is considerably longer with ribbed-wrinkled proximal half and the sclerotized bar at its anterior edge, being characteristic for *H. longipennis* and *H. himalaya* (see Hreblay and Ronkay 1998, Figs 1117, 1119), is missing. The female genitalia of the externally only similar Taiwanese congener, *H. costalis* (Butler, 1879) are illustrated in Fig. 29.

**Description.** Wingspan 30–32 mm, length of forewing 14–15 mm. Female. Head and thorax dark chocolate- or blackish-brown, upper sides of palpi, vertex and most parts of collar ochreous-orange; antenna filiform. Abdomen somewhat paler, more greyish, dorsal crest reduced, venter ochreous-greyish. Forewing elongate, narrow, with apex finely acute; outer margin crenulate. Ground colour shining, dark chocolate- or blackish brown, mixed with some ochreous and slate-grey. Costal stripe broad, pale ochreous grey, tapering towards apex; subbasal streak a diffuse blackish stripe. Crosslines relatively strong, double, sinuous, dark brown filled with ochreous grey, subterminal interrupted, usually a row of tiny whitish spots, strongest at tornus. Orbicular minute, ochreous with blackish outline; reniform narrow, V-shaped, marked with white and blackish lines, filled with pale brownish; both stigmata fused with costal stripe. Terminal line fine, blackish, sinuous, marked with ochreous; cilia as ground colour, weakly spotted with whitish-ochreous. Hindwing almost uniformly dark chocolate-brown with ochreous bronze sheen; veins darker, discal spot and transverse line diffuse but recognizable. Underside of both wings suffused with dark greyish brown; costal area of forewing and inner part of hindwing irrorated with pinkish-ochreous. Discal spots and transverse lines present but diffuse, stronger on hindwing. Male unknown.

Female genitalia (Fig. 30): Ovipositor rather short; papillae anales quadratic, finely setose, gonapophyses short, weak. Ostium bursae large, flattened, sclerotized, more or less trapezoidal, with arcuate proximal end. Ductus bursae much longer than ostium bursae, broadly tubular, flattened, distally slightly dilated; most parts strongly sclerotized, proximal half with strong sclerotized ribs. Cervix bursae small, conical, membranous. Corpus bursae elliptical-ovoid, wrinkled, with four elongate, broad signa.

**Bionomics and distribution.** A characteristic winter species, appearing late in the year, the imagoes are on wing from the beginning of December until the end of March. All specimens were collected at light, in deciduous and mixed forests, at medium high and high altitudes. Taiwan.

### ***Nyctycia signa* sp. nov.**

(Figs 32, 69)

**Types.** Holotype: ♀, Taiwan, Prov. Nantou, 3 km SW of Tsuifeng, 2100 m, 18.XII.1997, 121° 10'E, 24° 06'N, leg. Sándor Simonyi & Attila Szabó, slide No. HM10145 (coll. Hreblay).

**Diagnosis.** The taxonomic position of the new species is rather tentative due to the lack of the male sex. *Nyctycia signa* sp. nov. resembles externally mostly to *Nyctyciomorpha plagiogramma* (Hampson, 1906) but is larger in size, its palpi are significantly shorter, less porrect, the forewings are broader, apically less pointed and the hindwing is paler. The female genitalia of the two species are also

conspicuously different: the new species has longer, stronger, narrower ostium bursae with much deeper medial incision, longer, stronger ductus bursae, more sclerotized cervix bursae, and the corpus bursae has three long signum-stripes which are missing in *Nyctyciomorpha plagiogramma* (Fig. 31).

*Description.* Wingspan 31 mm, length of forewing 15 mm. Female. Pubescence of head and thorax brown mixed with ochreous hairs, collar and tegulae marked with blackish. Palpus short, slightly upturned, third joint also short, sides of palpus dark brown; antenna filiform. Abdomen somewhat paler, more greyish, dorsal crest present, consisting of small blackish tufts with paler tips. Forewing relatively broad, with apex finely pointed, outer margin crenulate. Ground colour shining, dark chocolate-brown, irrorated with ochreous and pinkish grey scales. Basal dash fine, blackish, ante- and postmedial crosslines double, blackish with paler filling; former oblique, less waved; latter strongly sinuous, its outer line partly obsolescent. Orbicular and reniform stigmata large, encircled with fine black outlines, filled with pinkish and ochreous brown scales; claviform marked with short, blackish arch. Subterminal line interrupted, diffuse, pinkish ochreous, slightly sinuous, peaks of medial W-mark flat, obtuse, defined with a few fine blackish arrowhead spots. Terminal line indistinct, brown; cilia as ground colour, marked with ochreous brown inner line and spots at veins. marginal invisible. Hindwing pale whitish grey, irrorated with a few brownish scales; veins darker; discal spot and transverse line obsolescent; marginal area broad, suffused with brownish; terminal line fine, blackish brown; cilia dark greyish. Underside of forewing unicolorous dark greyish-brown; transverse line and cilia somewhat darker, that of hindwing much paler; discal spot and transverse line diffuse but visible. Male unknown.

Female genitalia (Fig. 32): Ovipositor long, acute, papillae anales elongate, rather weak, gonapophyses slender, strongly sclerotized. Ostium bursae relatively long, narrow, sclerotized, more or less calyculate with deep medial incision. Ductus bursae medium-long, flattened, sclerotized, proximally broadened, ribbed. Cervix bursae discoidal, strongly ribbed and finely sclerotized. Corpus bursae globular, membranous with strong wrinkles and three long, ribbon-like signa.

*Distribution.* Taiwan.

### ***Fabiania* gen. nov.**

Type species: *pulla* sp. nov.

*Diagnosis.* The new genus represents a small, compact group, resembling externally the taxa of *Meganycyticia* Hreblay et Ronkay, 1998 and some groups of the *Polymixis* s.l. generic complex. It contains four, rather similar but easily distinguishable species, three of them are described here. The species of *Fabiania* differ from those of the closely related *Meganycyticia* Hreblay & Ronkay, 1998 by their larger size and stronger body of the species, characteristic, pale medial crest of the thorax, broader wings, different forewing maculation and by conspicuous differences in the genitalia of both sexes. The male genital capsula of the two genera are rather dissimilar by the first look because of the different shape and size of the homologous parts. In *Fabiania* the harpe -long, slender, arcuate- is shorter, weaker than the heavily sclerotized, sword-like, acute distal half of valva, while in case of *Meganycyticia* the harpe, fused with costa, is huge, curved, horn-like, much longer than the falcate, weaker, densely setose distal



part of valva ("cucullus"). In addition, the uncus of *Fabiania* is finer, slender, not flattened, as in *Meganyctycia*, the penicular lobes are much larger, lobate. The vesica and its armature are also different, the vesica is larger, more complex in *Fabiania*, armed with two strong, medium-large or huge, thorn-like cornuti sitting on separated diverticula, while the species of *Meganyctycia* have a smaller, flattened cornutus and a smaller or larger cornuti field covered with short spines. The female genitalia of the two genera differ mostly in the shape and size of the ostium and the sclerotization of the cervix bursae, the ostial plate is larger, stronger in *Fabiania*, the cervix is smaller, weaker, membranous-wrinkled or only slightly sclerotized. The species, *submediana* (Draudt, 1950) is transferred to this new genus (**comb. nov.**).

*Description.* Relatively large species, wingspan 45–47 mm. Both sexes similar. Head large, palpus short, upturned; antenna filiform in both sexes. Thorax strong, pubescence distinct, medial crest well-developed, double, much paler than collar and tegulae; metathoracic tuft large. Abdomen long, strong, dorsal crest reduced to large tuft at base; anal tuft of male rather weak; last sternite of female rather narrow with fine ridge terminally. Forewing elongate, relatively high; apex pointed; outer margin finely crenulate. Hindwing smaller, rounded. Forewing pattern usually diffuse, crosslines and stigmata present but often indistinct.

Male genitalia (Fig. 33): Uncus long, slender, tegumen with large, lateral penicular lobes, fultura inferior large, sclerotized, subdeltoidal; vinculum short, thick, V-shaped. Valva very long, slender, finely arcuate; distal part sclerotized, tapering, acute, like in most groups of *Conistra* Hübner, 1821, ventral extremity may forming small rounded lobe; corona reduced to short row of fine hairs. Sacculus narrow, clavus represented by minute protuberance; harpe very long, slender, curved, its base fused with costa. Aedeagus long, thick, cylindrical, weakly arcuate; carina with two long ventro-lateral bars fused apically, and two shorter dorso-lateral plates, right one finely dentate. Vesica broadly tubular, everted forward, recurved ventrally; medial part inflated. Basal third with two small dorsal diverticula; medial part with large, frontal diverticulum armed with large, bulbed, conical or thorn-like cornutus. Terminal third with four small, scobinate diverticula, one of them bearing either relatively large, strong, spine-like or smaller, conical cornutus.

Female genitalia (Figs 34–36): ovipositor short, broadly conical, rather weak, ventral plate of ostium bursae strongly sclerotized, quadrangular-lyriform with long lateral extensions caudally. Ductus bursae relatively short but longer than ostium, flattened, broad, strongly ribbed, with one or two larger sclerotized plates. Cervix bursae rounded, ribbed, a sclerotized plate may present. Corpus bursae large, elliptical-globular, with four long signum-stripes.

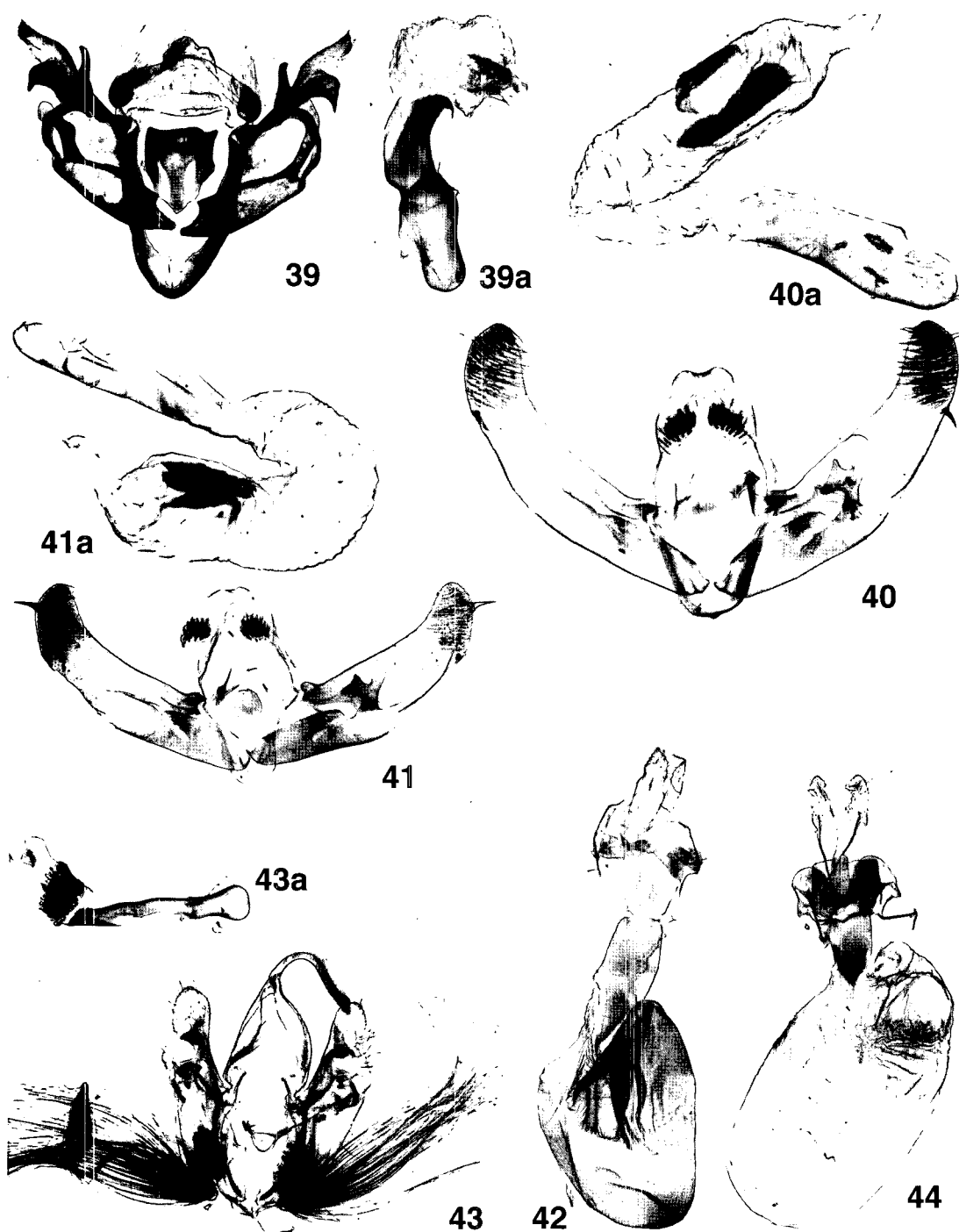
*Bionomics.* Poorly known. All species were found in humid deciduous and mixed forests at medium-high altitudes (1200–2000 m a.s.l.). They are on wing in the late autumnal-early winter period, and the specimens of the newly described species were collected at light.

*Distribution.* Eastern China ("West-Tien-Mu-Shan"), Northern Vietnam (Fan-si-pan Mts), Taiwan.

***Fabiania pulla* sp. nov.**

(Figs 33, 34, 70)

*Types.* Holotype: ♂, Taiwan, Prov. Taoyuan, Ming Chyr Forest Recreation Area, 1160 m, 10–11.



**Figs 39-44.** 39, *Telorta atrifusa* Hreblay & Ronkay, 1997, male, Taiwan; 40, *Karana hoenei* Bang-Haas, 1927, male, Japan; 41, *Karana hoenei marcida* ssp. nov., holotype; 42, ditto, paratype female; 43, *Sphagifera sigillata taimacula* ssp. nov., holotype; 44, *Athetis theobroma* (Hreblay & Ronkay, 1997), female, Taiwan.

XII.1997, leg. Gy. Fábián, slide No. RL6146 (coll. Fábián). Paratypes: Prov. Taoyuan: 1 ♀, with the same data as the holotype; 1 ♀, from the same site, 27–28.XI.1998, leg. Gy. Fábián and Z. Korsós. Prov. Taichung: 1 ♀, Anmashan, Hooping, 2414,7'N, 12058,4'E, 2000 m, 1.XII.1998, leg. Gy. Fábián and Z. Korsós; 1 ♂, Hohuachi, between Lishan and Tayuling, at the road No. 8, 1950 m, 24° 13'N, 121° 16'E, 28.XI.1999, leg. A. Kun, L. Peregovits and L. Ronkay (coll. HNHM, Gy. Fábián and G. Ronkay). 1 ♂, Fushing, Shangbaling, 20.XI.1981, leg B.S. Chang, No. 42737 (NMNS Taichung), slide No. RL6147 (♀).

*Diagnosis.* The new species resembles mostly *F. submediana* by its more or less unicolorous, dark forewings with less conspicuous crosslines and rather weak whitish marking in the reniform stigma. *F. pulla* differs from *F. submediana* by its darker colouration, less expressed antemedial and postmedial crosslines, without whitish definition, paler, more diffuse subterminal line and more sinuous but less curved antemedial line. The crosslines of the other two species are stronger, those of *F. satellitia* are filled with pale rufous, the whitish mark of the reniform is much larger, broader, and the hindwing is paler, its inner area ochreous, irrorated with dark brown scales. The basic colouration of *F. marki* is paler, the collar and the tegulae are tobacco-brownish, not blackish, the ante- and postmedial crosslines are only slightly sinuous, filled with ochreous-whitish, the subterminal line is a diffuse ochreous-greyish stripe. The male genitalia of the new species have, compared with those of *F. submediana*, larger penicular lobes, longer, more acute valvae without ventral lobe of cucullus and the cornuti of the vesica are essentially longer, stronger, thorn-like. The female genitalia of *F. pulla* differ from those of *F. satellitia* and *F. marki* by their much longer, stronger ostium bursae, considerably shorter ductus bursae with two separated sclerotized plates ventrally and larger, more rounded cervix bursae with stronger sclerotized plate. The ostium bursae of *F. satellitia* is significantly smaller, shorter than that of *F. marki*, while its ductus bursae is about twice as long as in case of *F. marki*.

*Description.* Wingspan 47–49 mm, length of forewing 21–23 mm. Both sexes similar. Head and thorax blackish brown; palpus, frons, collar mixed with ochreous hairs; medial crest of thorax double, pinkish-ochreous; pro- and metathoracic tufts large; antenna of both sexes filiform. Abdomen dark, greyish chocolate-brown; dorsal crest reduced to large, ochreous tuft at base; anal tuft of male ochreous brown; last sternite of female rather narrow with fine, ochreous ridge terminally. Forewing elongate, relatively broad with apex pointed; outer margin crenulate. Ground colour shining dark chocolate-brown, irrorated with pinkish, and with a few ochreous and blackish scales, especially in medial area and along subterminal line. Antemedial line strongly sinuous, double, filled with pinkish-ochreous, marked with blackish stripes at inner side. Medial area rather narrow, with large, blackish-brown patch below cell, darkest part of wing. Postmedial line rather diffuse, double, slightly sinuous, dark brown filled with pinkish or ochreous scales. Stigmata less conspicuous, large, encircled with blackish and a few whitish scales, orbicular flattened, oblique, reniform elliptical, latter marked with one larger and a few smaller white spots along outer edge, forming more or less continuous whitish line. Claviform hardly recognizable, dark brown arch, shadowed mostly by dark subcellular patch. Subterminal broad, diffuse, less sinuous, pinkish-ochreous, defined by more or less diffuse, dark brown arrowheads and irregular patches fused partly into dark zone. Terminal line row of blackish-brown triangles, cilia as ground colour, spotted with ochreous. Hindwing almost concolorous dark blackish brown, veins slightly darker, discal spot obsolete. Terminal

line dark brown, cilia ochreous-brownish, spotted with brown. Underside of wings dark greyish ochreous, suffused mostly with darker grey-brown. Discal spots and transverse lines present but diffuse, stronger on hindwing. The male genitalia (Fig. 33) are characterized in the description of the new genus.

Female genitalia (Fig. 34): Ovipositor rather short, weak, broadly conical; ventral plate of ostium bursae heavily sclerotized, long, quadrangular with long lateral arms caudally; dorsal plate membranous with fine scobination. Ductus bursae short, broad, flattened, distally tapering, proximal half strongly ribbed, ventral surface with two large sclerotized plates, proximal plate more or less quadrangular, distal plate elongate-elliptical. Cervix bursae large, rounded-discoidal, strongly ribbed, with smoothly sclerotized ventro-lateral plate. Corpus bursae large, spacious, globular, with four long signum-stripes.

*Bionomics and distribution.* *F. pulla* appears as a typical member of the winter Noctuidae fauna in Taiwan. It is found in cool, moist mixed forests at medium high and rather high altitudes.

*Remarks.* The specimen of the Chang collection, preserved in the NMNS Taichung, (in the Chang's Holotype box) with the No. 42737, is labelled as "*Antivaleria* sp. n. Type".

***Fabiania satellitia* sp. nov.**

(Figs 35, 71)

*Types.* Holotype: ♀, Vietnam, Prov. Lao Cai, Sa Pa, 1300 m, 103° 46'E, 22° 20'N, 15-20.XI.1993, leg. A. Bankovics & G. Csorba, slide No. RL6148 (coll. HNHM Budapest).

*Diagnosis.* *F. satellitia* differs externally from the other species of the genus by its much paler hindwings with rather sharply defined discal spot and transverse line, strong rufous-brownish irroration of the forewing and stronger, thicker white marking of the reniform stigma. The comparison of the female genitalia of the three newly described species is given under the diagnosis of *F. pulla*.

*Description.* Wingspan 44 mm, length of forewing 20 mm. Female. Head and thorax dark chocolate-brown mixed with reddish brown and a few blackish; medial crest of thorax double, whitish-ochreous to pale ochreous brown; pro- and metathoracic tufts large. Antenna filiform. Abdomen dark, greyish brown; basal segments with ochreous hairs; dorsal crest reduced to large, ochreous tuft at base, venter reddish-ochreous; last two sternites with well-developed, ochreous-reddish ridge. Forewing elongate, relatively broad with apex pointed; ground colour shining dark brown, basal; costal and marginal areas irrorated strongly with rufous-brownish; medial area with large, dark brown patch below cell. Basal area with dark patches below submedial and anal folds; subbasal and antemedial lines rather diffuse, double, sinuous, dark brown filled with pale rufous. Medial area rather narrow, postmedial line double, diffuse, less sinuous, filled with reddish-ochreous. Orbicular stigma poorly visible, flattened, oblique, reniform elliptical, incompletely encircled with dark brown, marked with large and a few small, fine white spots forming conspicuous white streak along outer edge; claviform hardly recognizable brown arch. Subterminal line broad, diffuse, less sinuous, reddish-ochreous stripe, defined by more or less indistinct, dark brown arrowheads and irregular patches. Terminal line row of rounded blackish spots. Hindwing shining ochreous irrorated with brown; marginal area broad, suffused with dark brown; discal spot large, diffuse, lunulate, transverse line wide, diffuse; terminal line dark brown; cilia ochreous-brownish, spotted with darker brown. Underside of wings shining ochreous; forewing with stronger grey-brownish

irroration; discal spots large, rounded, strong, transverse lines diffuse but well discernible on both wings.

Male unknown.

Female genitalia (Fig. 35): Ovipositor rather short, weak, broadly conical; ventral plate of ostium bursae short, broad, lyriform, with long lateral arms; dorsal plate membranous with fine scobination. Ductus bursae rather long, flattened, with more or less parallel margins; its walls strongly ribbed, ventral surface finely sclerotized, with stronger plate at posterior third. Cervix bursae large, rounded conical, strongly ribbed, without stronger sclerotization. Corpus bursae large, spacious, more or less globular, with four long signum-stripes.

*Bionomics and distribution.* *F. satellitia* is sympatric and probably syntopic with its congener, *F. marki*, in the lower primary forest zone of the Fan-si-pan Mts, N Vietnam.

***Fabiania marki* sp. nov.**

(Figs 36, 72)

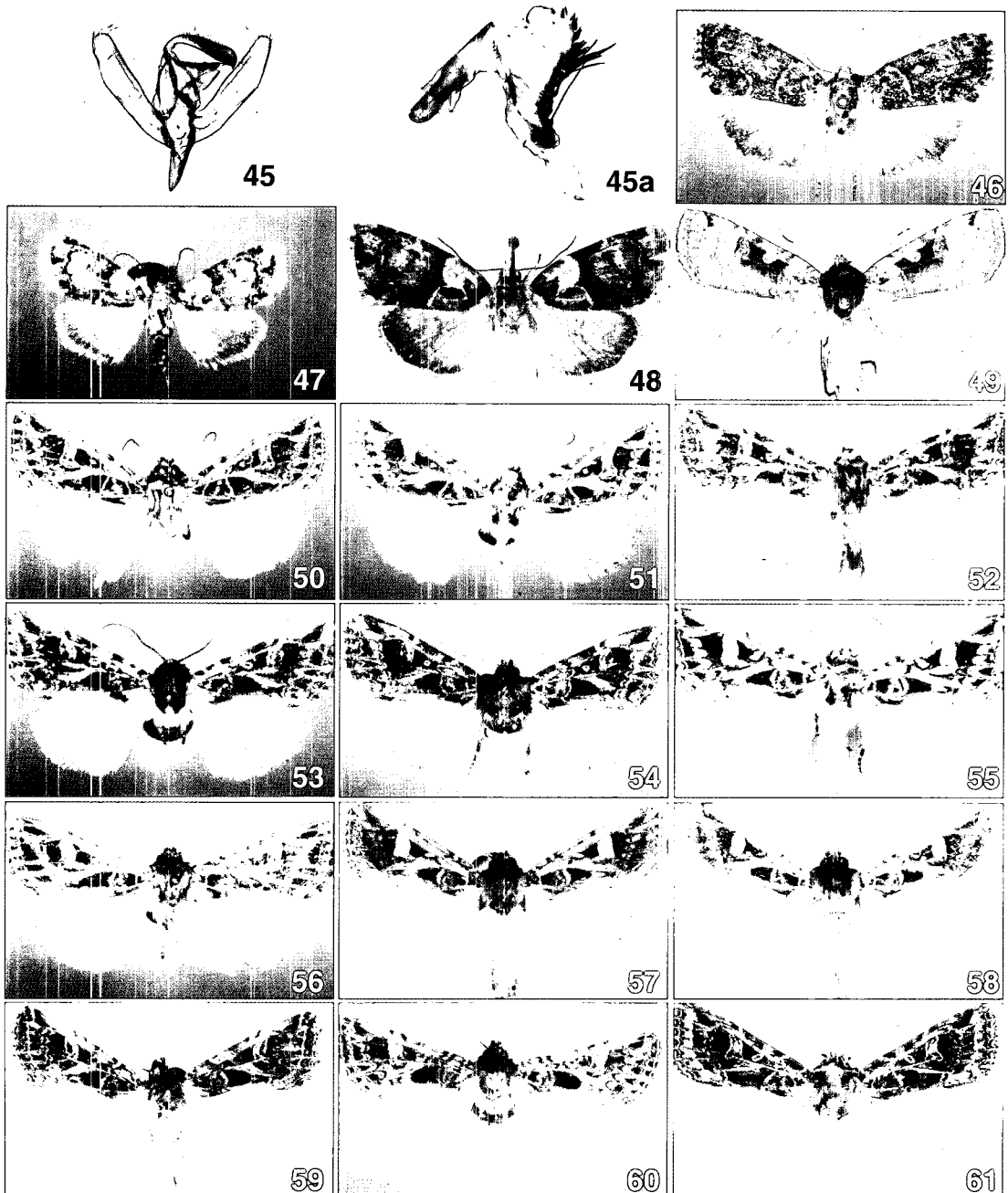
*Types.* Holotype: ♀, Vietnam, Prov. Lao Cai, 1900–2000 m, Fan-si-pan Mts, 14 km NW Sa Pa, 103° 46,06'E, 22° 20,9'N, 29.XI.1997, leg. L. Peregovits & L. Ronkay (HNHM Budapest). Slide No. RL6079.

*Diagnosis.* The new species is the fourth member of the genus, situated rather far from the other three taxa. It differs externally rather strongly from the related taxa by its paler brown ground colour of the body and the forewings, the stronger, more distinctly marked and less sinuous ante- and postmedial crosslines, resembling also to certain *Oroplexia* Hampson, 1908 species of the *O. simulata* (Moore, 1881) species-group. The differences between the female genitalia of the three newly described species are discussed in the diagnosis of *F. pulla*.

*Description.* Wingspan 45 mm, length of forewing 22 mm. Female. Head and thorax dark reddish brown mixed with a few blackish; medial crest of thorax double, whitish-ochreous; pro- and metathoracic tufts large. Antenna filiform. Abdomen more greyish, dorsal crest dark brown. Forewing elongate, relatively broad with apex pointed; ground colour shining brown, irrorated with ochreous and dark brown, especially in medial area and along subterminal line. Basal area with dark patches below submedial and anal folds. Ante- and postmedial lines rather diffuse, double, slightly sinuous, dark brown filled with whitish grey. Orbicular stigma poorly visible, flattened, oblique, reniform elliptical, incompletely encircled with dark brown, marked with fine white streak at outer edge, consisting of two tiny dots and longer line between them. Medial line darker brownish shadow, claviform hardly recognizable brown arch. Subterminal broad, diffuse, less sinuous, whitish-ochreous stripe, defined by more or less indistinct, dark brown arrowheads and irregular patches. Terminal line row of rounded brown spots, cilia pale brownish, spotted with dark brown. Hindwing almost concolorous dark brown; discal spot large, diffuse lunule; terminal line dark brown; cilia ochreous with brown medial line. Underside of wings dark greyish ochreous, irrorated with reddish brown; inner area of forewing with stronger brownish suffusion; discal spots large, rounded, strong, transverse lines diffuse but well discernible.

Male unknown.

Female genitalia (Fig. 36): Ovipositor rather short, weak, conical; ventral plate of ostium bursae



**Figs 45-61.** 45, *Amphipyra averna* Hreblay & Ronkay, 1997, male, Taiwan; 46, *Cryphia herczigi* sp. nov., holotype; 47, *C. hohuana* sp. nov., holotype; 48, *C. hohuana* sp. nov., paratype female; 49, *Xestia fuscostigma csoevarii* ssp. nov., holotype; 50, *Odontestra potanini* (Alpheraky, 1895) male, China; 51, *O. potanini* (Alpheraky, 1895) female, China; 52, *O. roseomarginata* Draudt, 1950, lectotype; 53, *O. roseomarginata* Draudt, 1950, male, China, Fukien; 54, *O. laszlogabi* sp. nov., holotype; 55, *O. atuntseana* Draudt, 1950, lectotype; 56, *O. atuntseana* Draudt, 1950, female, China; 57, *O. attila* sp. nov., holotype; 58, *O. attila* sp. nov., paratype; 59, *O. atra* Hreblay & Ronkay, 1998, male, Nepal; 60, *O. simillima* (Moore, 1882), Pakistan; 61, *O. submarginalis* (Walker, 1869), male, Nepal.

sclerotized, quadratic with long lateral arms and fine median incision at anterior end; dorsal plate membranous with fine scobination. Ductus bursae short, broad, flattened, with more or less parallel margins; its walls strongly ribbed, posterior half of ventral surface strongly sclerotized. Cervix bursae large, rhomboidal, strongly ribbed, without stronger sclerotization. Corpus bursae large, elliptical-globular, with four long signum-stripes.

*Bionomics and distribution.* The unique specimen was collected at the late of the autumn, in the higher forest region of the Fansipan Mts in northern Vietnam.

*Etymology.* The new species is dedicated to Mr Mark Grindley, one of the leaders of the Frontier-Vietnam.

***Asidemia albovitta* sp. nov.**

(Figs 37, 38, 73, 74)

*Types.* Holotype: ♂, Taiwan, Prov. Hualien, Pilushermuh, 22.VIII.1991, H.Y. Wang leg., slide No. RL6585 (coll. NMNS Taichung). Paratype: ♀, Taiwan, Prov. Taoyuan, Ming Chyr Forest Recreation Area, 1160 m, 13–14.07.1996, leg. G. Csorba & L. Németh (coll. Fábíán), slide No. RL6157(♀).

*Diagnosis.* The new species is very similar externally to *Asidemia inexpecta* (Sugi, 1963), *A. albovitta* and *A. i. inexpecta* can be distinguished mostly by the features of the genitalia. *A. i. insulicola* (Sugi, 1963) has generally darker forewing colouration, smaller white marking of postmedial line and darkened inner area of hindwing. The colouration and the wing pattern of the new species differ from those of “*Mniotype*” *cbgurungi* Hreblay et Ronkay, 1998 by the broader forewing with darker medial area, less distinct, paler, less sinuous ante- and postmedial crosslines, and the darker, ochreous-brownish subterminal line with much stronger W-mark. The male genitalia are similar to those of *A. inexpecta* (see Sugi 1982, Plate 364, Fig. 5), but differ in a series of details: the uncus of the new species is more lanceolate with narrower basal part and broader medial third; the medial process of the fultura inferior is considerably larger; the distal part of the valva is more angled, with smaller, rounded costal lobe; the cucullus is much narrower with concave costal margin; the harpe is shorter, thicker, more curved, apically much deeply bifurcate; the costal extension is shorter, apically less tapering and less curved; the two long cornuti of the vesica are less curved distally and the dorsal spinulose field is much larger, almost as long as the cornuti.

*Description.* Wingspan 40–43 mm, length of forewing 19–21 mm. Male. Head and thorax dark chocolate-brown, palpi, frons, collar and mesothorax marked with ochreous-brownish hairs. Palpus short, slightly upturned; antenna filiform. Abdomen more greyish, dorsal crest strong, dark brown. Forewing rather broad, with apex pointed; outer margin finely crenulate. Ground colour dark chocolate-brown with intense bronze shining; upper part of medial and marginal areas irrorated with ochreous-grey scales; veins also greyish. Streak of submedian fold short, that of anal fold longer, stronger. Ante- and postmedial lines rather sharply defined, blackish, double, sinuous, filled with ochreous; medial line diffuse, darker brown shadow. Orbicular and reniform stigmata large, rounded, incompletely encircled with blackish and pale ochreous; filled with ochreous-brownish, lower third of reniform plumbeous grey; claviform long, wide, black arch. Subterminal whitish, more or less continuous, strongly sinuous,

producing W-mark, defined with a few blackish lines on and between veins. Terminal line row of blackish triangles, cilia as ground colour, spotted with ochreous. Hindwing ochreous, inner area irrorated, wide marginal field suffused strongly with dark cupreous brown; veins darker, discal spot and transverse line obsolescent. Terminal line dark brown; cilia ochreous-whitish, spotted with brown. Underside of wings whitish-ochreous; outer parts of both wings strongly suffused; inner halves sparsely irrorated with dark brown, transverse lines and discal spot of hindwing dark brown. Female: As male, wings somewhat broader, antenna slightly finer, hindwing with stronger dark brownish suffusion.

Male genitalia (Fig. 37): Uncus rather short, basal half slender, cylindrical, distal flattened, broadly lanceolate, dorsally strongly hairy, apex finely rounded. Tegumen rather broad, penicular lobes large, more or less quadrangular, densely hairy. Fultura inferior trapezoidal, dorsally tapering, dorsal half deeply impressed, medial process very large, heavily sclerotized, stick-like, apically slightly dilated, rounded, apical incision rather deep. Vinculum strong, V-shaped, with rounded tip. Valva long, narrow, distally curved, tapering towards base of cucullus, forming narrow neck, subapical costal lobe small, rounded. Cucullus foot-shaped, rather narrow, with slightly concave dorsal margin, ventral surface covered with strong, relatively short, acute setae; corona long, weak. Saccus short, clavus represented by small, rounded, scobinate-setose lobe. Harpe strong, rather thick, S-shaped, with bifurcate apical part; apical arms equally long. Aedeagus cylindrical, short, straight; ventral part of carina sclerotized, covered with small teeth. Vesica rather short, broadly tubular, more or less T-shaped. Dorso-lateral arm inflated, scobinate, with two long, acute, slightly arcuate, basally fused cornuti; ventro-lateral arm ("main tube") narrower, distally tapering, armed with large, dense field of fine, acute spinules.

Female genitalia (Fig. 38): Ovipositor rather short, strong, broadly conical; anterior papillae anales with strong but short; acute triangular extensions to ostial ring. Ostium bursae short, wide, heavily sclerotized. Posterior part of ductus bursae short, gelatinous, anterior three-quarters fused with cervix bursae forming cristate-ribbed, sclerotized, broad tube, its sclerotization extending to apical third of corpus bursae; ductus seminalis originated from rounded postero-ventral tip of this complex. Corpus bursae large, spacious, ovoid, membranous, without signum.

*Distribution.* Taiwan.

### ***Telorta atrifusa* Hreblay & Ronkay, 1997**

(Fig. 39)

*Additional material examined.* 1 ♂, Taiwan, Prov. Nantou, 3 km SW of Tsuifeng, 2100 m, 12.XII.1997, 121° 10'E, 24° 06'N, leg. S. Simonyi & A. Szabó (coll. Hreblay), slide No. HM10129 (♂).

*Remarks.* The male genitalia of this species are illustrated in Fig. 39.

### ***Karana hoenei* Bang-Haas, 1927**

(Figs 40, 75)

*Type material examined.* Holotype: ♂, Mokashan, b. Hang-tschau (coll. MNHU, Berlin).

*Additional material examined.* Japan: 2 ♂, Yoshino Prov., Yamato, Honshu, 20., 23. IX. 1900,



A.E. Wileman (coll. BMNH).

*Remarks.* The two specimens of *Karana hoenei* Bang-Haas, 1927 from Japan fit externally well with the holotype from the continental Asia (China); new records from the Kii Peninsula were published by Yanagita (1999). The insular subspecies *K. h. inornata* Sugi, 1991, described from the Ryukyus (Okinawa, Amami-Oshima), has darker colouration of both wings, the white markings of the forewing are narrower, less conspicuous and the whitish inner area of the hindwing is smaller, suffused with brownish (see Yanagita, op. cit., Figs 1–9).

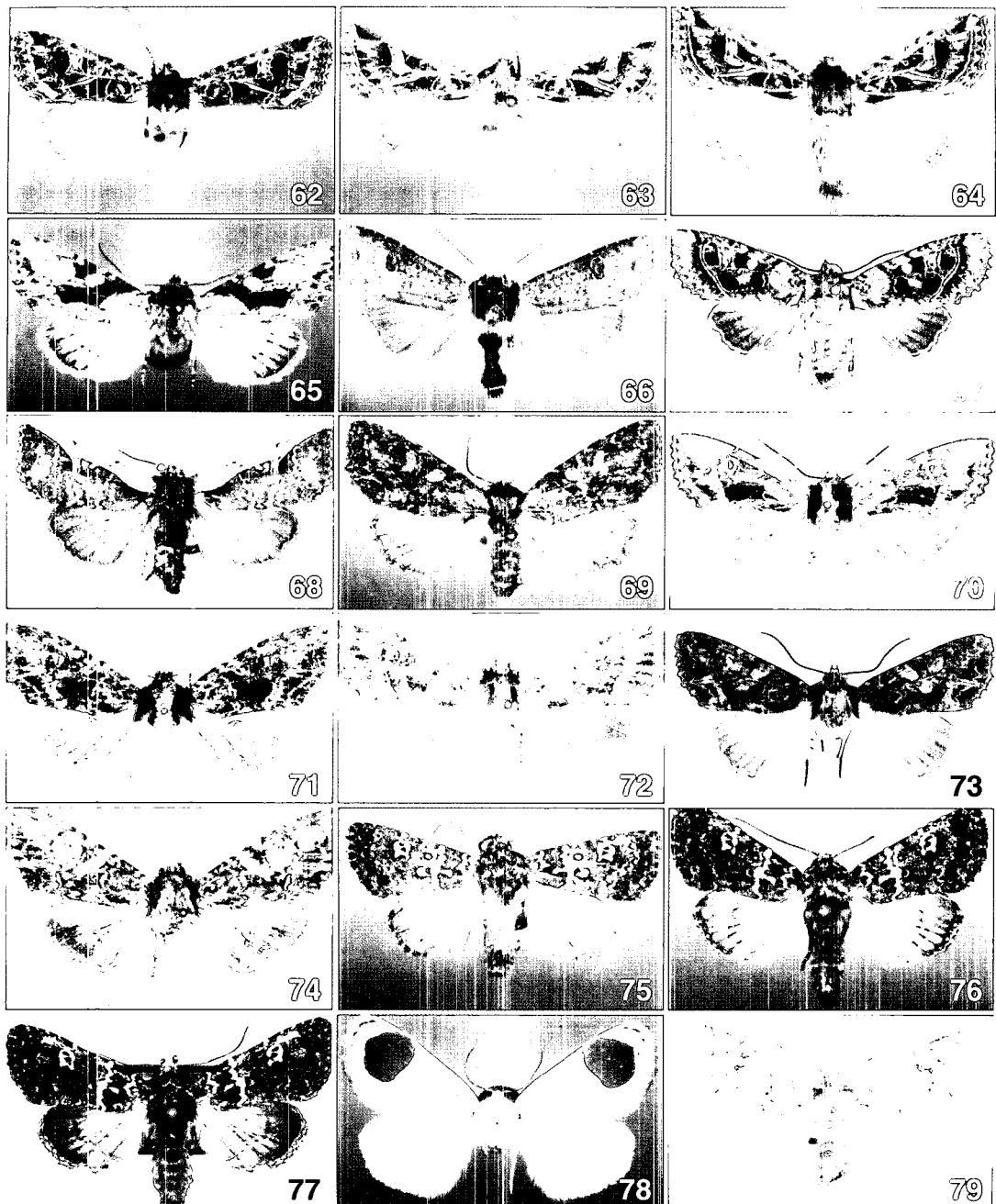
***Karana hoenei marcida* ssp. nov.**

(Figs 41, 42, 76, 77)

*Types.* Holotype: ♂, Taiwan, Prov. Taoyuan 14 km E of Fuhshing, 800 m, 31.V.1995, 121°23'E, 24°06'N, leg. Márton Hreblay & Pál Stéger, slide No. HM7763 (coll. Hreblay). Paratypes: Taiwan: Prov. Taoyuan: 4 ♂, 4 ♀, 14 km E of Fuhshing, 800 m, 18.V.1995, 31.V.1995, 2.VI.1995, 4.X.1995, 5.X.1995, 28.X.1995, 121°23'E, 24°50'N; 32 ♂, 26 ♀, Ming Chyr Forest Recreation Area, 1160 m, 29.II.1996, 5–6.X.1996, 17–18.IV.1997, 4–5.VI.1997; 1 ♂, Fushing, Shangbaling, 26.XI.1981, No. 15762. Prov. Nantou: 1 ♀, 5 km SW of Tayüling, 2900 m, 8.X.1995, 121°17'E, 24°09'N; 2 ♀, 3 km SW of Tsuifeng, 2100 m, 26–27.X.1995, 121°10'E, 24°06'N; 2 ♂, 2 ♀, Hsiangyang, Police station, 2320 m, 25–26.X.1996. Prov. Taitung: 1 ♀, 2 km N of Tupan, 500 m, 16.X.1995, 120°52'E, 22°29'N; 1 ♂, 1 ♀, 2 km E Hsiangyang, 2200 m, 6.VII.1996. Prov. Miaoli: 1 ♂, 49 km E of Tungshih, 2490 m, 22.V.1997, 121°03'E, 24°19'N. Prov. Kaohsiung: 1 ♂, 26 km SE of Taoyüan, 1370 m, 2.VI.1997, 120°52'E, 23°17'N. Prov. Taipei: 6 ♂, 4 ♀, Wulai, 600 m, 13–15.VI.1993; 1 ♂, Wulai, 435 m, 20/22. IX. 1992; 1 ♀, 10 km SE of Pingling, Pihou, 450 ♂, 3.V.1997; 2 ♀, Hsinhsien, 20.X.1989 and 20.X.1991. Prov. Ilan: 6 ♂, 9 ♀, Fushan, 29.V.1990, 23.X.1990, 30.V.1995, 30.VIII.1995, 26–27.IX.1995; 1 ♂, 4 ♀, Tatung, Chihtuan, 7.X.1983; Nos 15426, 15504, 15560, 15675, 15820; leg. F. Aulombard, B.S. Chang, Y.C. Chang, G. Csorba, T. Csövári, Gy. Fábrián, Y.B. Fan, B. Herczig, M. Hreblay, Hsiao, T.C. Jong, S.T. Kovács, F. Nemes, L. Németh, J. Plante, L. Ronkay, P. Stéger, I. Soós, Cs. Szabóky (coll. Csövári, Fábrián, Herczig, Hreblay, Kovács, Plante, G. Ronkay, Thöny, TFRI Taipei, NMNS Taichung & HNHN), slide Nos HM7132, HM7133, HM7134, HM7766, HM7767 (♂), HM7135, HM7136, HM7764 (♀).

*Diagnosis.* The new subspecies differ from *K. hoenei* Bang-Haas, 1927 by its more intense metallic green irroration with more ochreous shade, narrower, somewhat more ochreous antemedial line and by the broader dark marginal area of the hindwing. As compared with *K. h. inornata*, *K. h. marcida* has more intense white forewing pattern, broader antemedial line, stronger greenish suffusion and more whitish basal area of the hindwing. The genitalia of both sexes are illustrated in Figs 41, 42, they show no remarkable differences compared with those of the other populations.

*Distribution.* Taiwan.



**Figs 62-79.** 62, *O. submarginalis* (Walker, 1869), lectotype of *O. auripicta* (Butler, 1889); 63, *O. incisa* (Moore, 1881), lectotype; 64, *O. incisa* (Moore, 1881), male, Nepal; 65, *Xylopolia bella taiwanicola* ssp. nov., holotype; 66, *Xylena plumbeopaca* sp. nov., holotype; 67, *Taivaleria rubrifasciata* sp. nov., paratype male; 68, *Hemiglaea radiata* sp. nov., holotype; 69, *Nyctycia signa* sp. nov., holotype; 70, *Fabiania pulla* sp. nov., holotype; 71, *F. satellitia* sp. nov., holotype; 72, *F. marki* sp. nov., holotype; 73, *Asidemia albowitta* sp. nov., holotype; 74, *A. albowitta* sp. nov., paratype; 75, *Karana hoenei* Bang-Haas, 1927, male, Japan; 76, *K. hoenei marcida* ssp. nov., holotype; 77, *K. hoenei marcida* ssp. nov., paratype female; 78, *Sphagifera sigillata taimacula* ssp. nov., holotype; 79, *Athetis theobroma* (Hreblay & Ronkay, 1997), female, Taiwan.

***Sphragifera sigillata taimacula* ssp. nov.**

(Figs 43, 78)

*Types.* Holotype: ♂, Taiwan, Prov. Nantou 3 km SW of Tsuifeng, 2100 m, 1.VI.1995, 121° 10'E, 24° 06'N, leg. Márton Hreblay & Pál Stéger, slide No. HM10168 (coll. Hreblay). Paratypes: Taiwan: Prov. Taitung: 1 ♂, 5 km NW of Lirao, 1760 m, 28.V.1995, 120° 59'E, 23° 13'N, leg. Hreblay & Stéger. Prov. Nantou: 1 ♂, 3 km SW of Tsuifeng, 2100 m, 25–26.VI.1997, 121° 10'E, 24° 06'N, leg. T. Csövari & L. Mikus; 4 ♂, 3 km S Hoshe, 1400 m, Yushan Mts, 8.VII.1996, leg. G. Csorba & L. Németh; 4 inds., Tungpu, Yu-Shan Mts, 1400, 24–25.IV.1997, leg. S.T. Kovács, 2 inds., Dongpuu, 1300 m, 21.IV.1991, Nos 5819 and 5872, leg. B.S. Chang; 3 ♂, Dongpuu, 2.V.1991, leg. H.R. Tzuoo; 9 inds., Hsini, Tungpu, 3.VII.1982, 16.IV.1985, 19.IV.1985, Nos 3450, 14612, 14618, 14623, 14644, 14751, 14806, 14864, 14922, leg. B.S. Chang; 1 ♂, Jenai, Lushan, 18.V.1985, No. 14746, leg. B.S. Chang; 1 ♂, Shenmu, 1200 m, 24.IX.1994, leg. H.R. Tzuoo. Prov. Ilan: 15 ♂, 1550 m, Suyuan near Pinan at the road, 7/1, 6.VI.1997, leg. B. Herczig & L. Ronkay. Prov. Hualien: 1 ♀, Hoping Log. Road, 22.VI.1992, leg. Y.C. Chang; 2 ♂, 2 ♀, Nanan, 18.VIII.1993, leg. H.R. Tzuoo and C.M. Fu; 1 ♂, Taroko valley, Hsipao, 1000 m, 20.IV.1997, leg. S.T. Kovács. Prov. Kaohsiung: 1 ♂, Hsenping, 22.VI.1987, leg. Y.C. Chang. Prov. Taichung: 1 ♀, Pashenshan, 1000 m, 6.V.1995, leg. C.M. Fu; 2 ♂, 1 ♀, Pashenshan, 1300 m, 25.IV.1992, leg. C.M. Fu; 1 ♀, same site, 1300 m, 28.VII.1994, leg. H.R. Tzuoo. 6 inds., Taiwan, Tsuiluan, 3.IV.1986, Nos 14564, 14632, 14809, 14886, 14947, 14958, leg. B.S. Chang (coll. Herczig, Hreblay, G. Ronkay, TFRI Taipei, NMNS Taichung & HNHM).

*Diagnosis.* The new subspecies differs from the typical *S. sigillata* (Menétriés, 1859), occurring in the continental part of East Asia and in Japan, by its larger, almost rounded brown subapical patch of the forewing. The male genitalia of the two races show no significant differences, those of *S. s. taimacula* are illustrated in Fig. 43.

*Distribution.* Taiwan.

***Athetis* (s. l.) *theobroma* (Hreblay et Ronkay, 1997), comb. n.**

(Figs 44, 79)

*Type material examined.* holotype, ♂, Taiwan, Prov. Nantou, 3 km SW of Tsuifeng, 2100 m, 9.XI.1996, 121° 10'E, 24° 06'N, leg. T. Csövari & Cs. Szabóky, slide No. HM9389 (coll. Hreblay). *Additional material examined:* 1 ♀, Taiwan, Prov. Kaohsiung, 26 km SE of Taoyuan, 1370 m, 11.XII.1997, 120° 52'E, 23° 17'N, leg. S. Simonyi & A. Szabá (coll. Hreblay), slide No. HM10161 (♀).

Female genitalia (Fig. 44): Ovipositor weakly sclerotized, gonapophyses slender, fine. Ventral plate of ostium bursae wide, its distal margin deeply waved. Ductus bursae relatively short, proximally tapering; cervix bursae short, rounded. Distal part of corpus bursae ribbed with stronger sclerotization, proximal part membranous, without signum.

*Remarks.* The species was described on the basis of a single male (Hreblay and Ronkay 1997). The newly discovered female sex of the species and the studies of another, yet undescribed sister taxa, being distributed in Taiwan, Vietnam and Thailand indicate the correct generic placement of *Athetis* (s.l.)

*theobroma* in this very large, difficult, rather heterogeneous basically subtropical genus, despite the long saccular process of the male genitalia.

*Distribution.* Taiwan.

### ***Amphipyra averna* Hreblay et Ronkay, 1997**

(Fig. 45)

*Type material examined.* holotype, ♀, Taiwan, Prov. Taoyuan, 16 km E of Fuhsing, 870 m, 27.X.1996, 121° 24'E, 24° 50'N, leg. Csövári and Szabóky, slide No. HM9739 (coll. Hreblay).

*Additional material examined.* 1 ♂, Taiwan, Prov. Taoyuan, 16 km E of Fuhsing, 900 m, 30.XI. – 1.XII. 1997, 121° 27'E, 24° 50'N, leg. S. Simonyi & A. Szabó (coll. Hreblay), slide No. HM10139 (♂).

*Redescription.* Male genitalia (Fig. 45): Uncus strong, distally dilated, apical part with small, rounded hump, tip pointed. Tegumen high, vinculum long, strong, V-shaped. Fultura inferior cordiform, rather weakly sclerotized. Valva elongate, slightly dilated at medial third. Cucullus finely tapering, apex rounded, corona absent. Sacculus short, clavus small, rounded, harpe absent. Aedeagus short, straight, thick; carina with long, sclerotized, beak-shaped ventral process. Vesica broadly tubular; medial part inflated, recurved dorso-laterally; outer surface armed with long field of cornuti consisting of numerous smaller, thicker basal, and longer or very long, pin-like, wide-based terminal cornuti; their basal plates may fused into common lamina; inner curve of vesica with large basal-subbasal field of fine, short, hair-like spiculi and short row of fine, short, acute basal cornuti.

*Distribution.* Taiwan.

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